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APPOINTMENT OF CITY HEALTH COMMISSIONER.

COURT DECIDES THAT APPOINTMENT MADE UPON CERTIFICATION BY CIVIL SERVICE COMMISSION WAS LEGAL THOUGH BY MISTAKE THE WRONG PERSON HAD BEEN CERTIFIED.

In 1914 an examination was held by the civil service commission of Kansas City, Kans., to fill a vacancy in the office of health commissioner. Two names were certified for appointment, and Dr. C. W. McLaughlin was selected and appointed. Later the civil service commission discovered that an error had been made in totaling the grades, and that the name of Dr. McLaughlin should not have been certified. The city commissioners attempted to remove him from the office, but the Supreme Court of Kansas decided that Dr. McLaughlin's appointment was made in compliance with the statute, and that it was therefore legal notwithstanding the mistake.

The opinion of the court is published in this issue of the Public Health Reports, page 967.

THE CONTROL OF TYPHOID FEVER.

A DEMONSTRATION OF EFFICIENCY IN HEALTH ADMINISTRATION.

The necessity for painstaking work and attention to details in the control of a disease is well exemplified in the methods employed by the New York City Department of Health in the control of typhoid fever and in the results obtained by the use of these methods. Many health departments are not in a position to do such thorough work, and to the degree that this is so the protection which they give to their respective communities must be less real.

In New York City every case of typhoid fever reported to the department of health is visited by a nurse, who makes careful inquiries of the family into the history of the case and records the facts elicited on a special history card. These cards are then analyzed by the chief of the division of epidemiology, and, if necessary, additional investigations are undertaken to learn the source of infection and to see that further infections are prevented.

Each borough is divided into several sections, in each of which is located a branch office in charge of a physician and having attached to it district diagnosticians and nurses. There are in all 19 branch offices in the city of New York. When a report of a case is forwarded to the borough office, it is telephoned to the branch office for the district in which the case is located. The case is assigned to a district nurse, who calls at the home of the patient and interviews a responsible member of the family for the purpose of obtaining, as regards the patient, the age, the business address, the date of onset, the beginning of prodromal symptoms, and all of the food habits which may be of service in tracing the infection, including the milk supply, water supply, use of raw oysters or green vegetables or other raw foods, and, in special cases, particular articles of diet, such as ice cream, etc. There are also noted other things important in tracing the source of infection, as the whereabouts of the patient for a period of one month preceding the onset; whether there has been any suspicious illness among any of the friends or relatives of the patient or in the house in which the patient lives, or among the servants; and whether there has been any typhoid fever in the family during the past few years. It is not necessary to annoy the patient with these questions, as almost invariably this information can be better obtained from another member of the household.

The nurse makes inquiry as to what measures are taken to prevent other persons from contracting the disease; whether the patient has a separate room and bed; who nurses the patient; whether the dishes are sterilized; and whether every effort is made to prevent the dissemination of infective material. Special cards of instruction are provided for the convenience of the family, informing them as to how best to prevent the infection of other people.

Special attention is given to food handlers. If the patient has been engaged in the manufacture or sale of food material, he or she may not return to work until several fecal examinations fail to disclose the presence of typhoid bacilli. No food handler who is a member of the household in which there is a case of typhoid may continue to reside at home unless the patient be removed to a hospital.

The varied information collected by the nurse is forwarded to the division of epidemiology on a special history card and is carefully studied. A tabulation is made of all cases, with appropriate grouping of the several items according to their bearing upon infection.

Painstaking methods of the kind above described are the ones which have been effective in the eradication of such diseases as plague and yellow fever. They are the methods which must be employed in any serious attempt to control any disease.

It is of interest to compare the typhoid death rate of New York with the rates of other large cities. The following table shows the

typhoid death rates per 100,000 population for 1914 of cities of the United States having an estimated population of over 500,000, and of Buffalo, Los Angeles, San Francisco, Washington, and Rochester:¹

Baltimore.....	22.6	Pittsburgh.....	15.0
Boston.....	9.0	St. Louis.....	12.0
Chicago.....	6.6	Buffalo.....	16.3
Cleveland.....	8.1	Los Angeles.....	7.7
Detroit.....	14.1	San Francisco.....	12.7
New York.....	6.3	Washington.....	11.9
Philadelphia.....	7.6	Rochester.....	10.2

It will be noted that the rate for New York City was lower than that for any of the other metropolitan centers, and that of Chicago was second. That great reductions in the rates have been made in these cities is shown by the fact that in 1900 the corresponding typhoid rate for New York City was 20.8; in 1905 it was 16; in 1910, 11.6; and in 1914, 6.3, while the Chicago rate was 19.8 in 1900, 16.9 in 1905, 13.7 in 1910, and 6.6 in 1914.

There would seem to be no good reason why typhoid fever should spread in intelligent urban populations. The factor of water as a carrier should be eliminated, milk as a carrier should be eliminated, and the spread of the disease by flies should be negligible, because there should be few flies in a city. Most of the cases in properly maintained cities would undoubtedly be instances of infection imported from the country and rural districts. Bolduan, of the New York City Department of Health, believes that the typhoid fever of most of our large cities has been due largely to imported infection, and this seems to be borne out by the epidemiologic data of the New York City cases for the year 1915. Of the 874 cases for this year, of which satisfactory data as to the probable source of infection were obtained, 372 received their infection definitely out of town, and 112 more were due to milk which had become infected outside of the city.

BREAD AS A FOOD.

CHANGES IN ITS VITAMINE CONTENT AND NUTRITIVE VALUE WITH REFERENCE TO THE OCCURRENCE OF PELLAGRA.

By CARL VOEGTLIN, Professor of Pharmacology, M. X. SULLIVAN, Biochemist, and C. N. MYERS, Technical Assistant, United States Public Health Service.

Bread has been from time immemorial the staple article of diet of the greater part of the human race. This statement applies particularly to people living under more or less poor economic circumstances, as the cereal foods are comparatively cheap and may be obtained

¹ The rates given were furnished by the Bureau of the Census.

easily at all seasons of the year. From the point of view of public health it is, therefore, of considerable importance that the bread supplied for human consumption should possess the highest possible nutritive value. The results of the investigations here reported refer particularly to conditions prevailing in the United States, and are the outcome of some studies on the causes of the occurrence of pellagra in this country. Apart from their bearing on the pellagra problem, they may be considered of interest from the viewpoint of human nutrition.

From the available data one may conclude that the nutritive value of bread made from corn or wheat remained much the same from the time of the early settlers until about 1880. During this long period bread was prepared from wheat flour or corn meal with salt and with or without the addition of other ingredients, such as fresh milk, buttermilk, molasses, etc. The wheat flour or corn meal was obtained by simply crushing the whole grain between stones, by various means, to the desired degree of fineness. The resulting flour or corn meal, from which the coarser particles of bran were partly sifted out, was then used for making bread. Accordingly the bread contained practically all of the nutritive elements of the whole grain. During the last 50 years, however, radical changes have taken place, with the tendency of reducing considerably the nutritive value of bread. The factors at work in this change are very closely connected with the radical changes in our social and economic life. It may suffice to call attention to two of the most important factors:

The rapid increase in the output of wheat and corn and the increase in the cost of labor necessitated the invention of mechanical devices for the more economic milling of these cereals. The introduction of the roller-mill system into the United States in 1878 represents probably the most important change in this direction. By means of the roller process it was made possible to separate the various parts of the kernel, namely: The germ or embryo, the bran, and the endosperm, or starchy part. The latter could then be ground to a very fine flour, which, on account of its white appearance, appealed to the housewife as an assumably purer product. The germ and bran were largely discarded as human foods and put on the market as food for cattle, horses, and swine. While it is quite true that the highly milled products (wheat flour, corn meal, corn flour, and grits) obtained by the roller process are far superior to the old-fashioned whole-wheat flour and corn meal so far as the keeping qualities are concerned, at the same time this modern process deprives the finished products of some valuable food constituents. A large number of analyses of such products made in the Bureau of Chemistry of the Department of Agriculture and at the Hygienic Laboratory clearly show that the highly milled wheat flour and corn meal contain

less protein, fat, and ash than the old-fashioned products—a fact which would be expected, as the endosperm, from which the newer products are manufactured, is especially rich in starch cells.

Other things being equal, the lessened amount of protein, fat, and ash in the highly milled as compared with the undermilled products, while undesirable from the standpoint of nutrition, might be considered as a negligible change when compared with the better keeping qualities of the newer products, especially in view of the fact that in recent years it seems impossible to avoid long-continued storage of flour and corn products. The highly milled products, however, are often deficient in certain essential accessory food substances, which are designated as vitamins. These substances are located in the intact kernel in the outer layers (aleurone layer) and probably also in the germ. As seen above, the modern roller process eliminates to a great extent the bran and germ, and the resulting wheat flour, corn flour, and grits (hominy) might be expected to be deficient in vitamins, an assumption which has been amply verified by Myers and Voegtlin in work, the details of which will be published as a bulletin of the Hygienic Laboratory. It may suffice here to state that it was found that, whereas the corn meal and wheat flour made by the old-fashioned process, which is still in use to some extent in the South, contains practically all of the vitamins of the whole grain, the highly milled products are considerably deficient in these substances.

Fowl, the classical experimental animal for the physiological estimation of the vitamin content of foods, will live in perfect health for many months on an exclusive diet of wheat, corn, whole-wheat flour, or so-called "waterground" corn meal. If these animals are fed, however, on highly milled products they will die within a month or two of polyneuritis, a disease very similar to beriberi. There seems to exist a perfect analogy between the well-known relation of the polishing of rice to its nutritive value, and the milling of wheat and corn to the nutritive value of wheat flour and corn meal. In the case of beriberi, numerous observations have demonstrated the fact that, if the diet of people is largely made up of highly polished rice and is otherwise deficient in vitamins, beriberi will make its appearance, whereas, if undermilled rice is substituted for the highly milled variety, the disease is not so likely to break out. Little¹ reports an outbreak of beriberi among the fishermen of Newfoundland, who lived mainly on bread made from highly milled wheat flour.

From these considerations it would appear that a simple method for the determination of the vitamin content of cereal products would be of great value. Unfortunately it is still impossible to base

¹ Little. Jour. Am. Med. Assn. 1912. Vol. 58, 2029.

such a method on the direct isolation of these substances from the natural foods. The determination of the total phosphorus content of these products, however, seems to give a fairly accurate index of the relative amounts of vitamins present. While phosphorus does not enter into the vitamin molecule the distribution of phosphorus and vitamins within the grain runs practically parallel. Fraser and Stanton, on the basis of a large number of observations and analyses, came to the conclusion that rice containing less than 0.4 per cent of phosphorous pentoxide (P_2O_5) is deficient in vitamins. Myers and Voegtlin have used this method in order to correlate the vitamin content of wheat and corn products as found by animal experimentation with that of the quantitative estimation of the P_2O_5 content of these same products. Without going into detail, it was found that in the case of these cereals the same relation exists between P_2O_5 and vitamin content as in the case of rice. The following table illustrates this point:

	Per cent of P_2O_5 in dry food.	Number of days required for appearance of polyneuritis in fowl fed exclusively on this food.
Wheat bread made from highly milled flour.....	0.114	20-32 days.
Whole wheat.....	1.120	No symptoms developed.
Corn grits (highly milled).....	0.169	23-50 days.
Corn grits (highly milled).....	0.210	30 days.
Corn meal (highly milled).....	0.30	35 days.
Corn meal (old-fashioned rock ground).....	0.659	Remained well.
Corn meal (rock ground).....	0.772	Remained well.
Corn germ.....	2.816	Remained well.
Corn, whole.....	0.760	Remained well.

While this method does not yield absolute values of the vitamin content of cereal products, we propose provisionally the following standard for wheat flour, corn meal, and grits (hominy): For corn products the minimum P_2O_5 content should not be below 0.50 per cent, that of wheat flour not lower than 1 per cent.

The method of determination of P_2O_5 is relatively simple. The products are dried at $100^\circ C.$ and then ashed according to the Neumann method.

We believe that the determination of the P_2O_5 index will be found of value in all cereal products, except the so-called "Self-raising flours." These latter products contain baking powders, which often are composed of phosphates. As the label of these flours always indicates whether baking powder has been added, it would be an easy matter to discard such flours for this purpose.

We now should like to call attention to another factor involved in the reduction of the vitamin content of bread, especially corn bread. This concerns the use of baking soda in the preparation of bread. Simultaneously with the introduction of highly milled corn meal it was found that this product when mixed with salt and water did not yield a bread of the same lightness as the old-fashioned

meal. Housekeepers, therefore, began to resort to artificial leavening. Baking soda (sodium bicarbonate) became very popular among them. This preparation is used very extensively for this purpose in South Carolina, where one of the writers (Voegtlin) had an opportunity of studying its uses in cooking. Bread made by means of baking soda has under certain conditions a distinctly alkaline taste and reaction. In order to prepare bread in this way corn meal is mixed with water or milk to which baking soda has been added. The resulting mush is baked in the oven. The high temperature in the oven liberates carbon dioxide (CO_2) from the baking soda (sodium bicarbonate) and the latter is transformed into sodium carbonate, a strong alkali. The evolution of CO_2 causes the bread to rise. Recent experiments by Sullivan and Voegtlin¹ have clearly demonstrated the destructive action of alkalis on vitamins.² These substances lose their physiological activity when exposed to alkalis, this being especially true at high temperature. Corn bread made from old-fashioned (whole) corn meal, sweet milk, and soda, when forming the exclusive diet of chickens, leads to symptoms of polyneuritis, whereas corn bread prepared from corn meal, sweet milk, and salt (NaCl) does not give rise to any symptoms, and fowls seem to live in perfect health.³ Chickens which have developed polyneuritis on the corn bread made with sweet milk and soda are cured by the administration of vitamins prepared from various foods. Hence, we may conclude that corn bread prepared by means of baking soda without the addition of buttermilk is deficient in certain essential accessory foods (vitamins) and that this deficiency is due to the destructive action of the alkali (baking soda) on the vitamins which were originally contained in these foods.

The following table illustrates the destructive action of baking soda on the vitamin content of corn bread. Ten chickens were fed on corn bread of the following composition: 600 gm. of corn meal, 800 c. c. of sweet milk, and 10 gm. of baking soda.

Laboratory numbers of animals.	Number of days before appearance of polyneuritis after feeding was begun.	Laboratory numbers of animals.	Number of days before appearance of polyneuritis after feeding was begun.
31.....	13	37.....	19
32.....	14	38.....	21
33.....	27	39.....	18
34.....	13	40.....	16
35.....	22		
36.....	14	Average.....	17

¹ Proc. Amer. Soc. Biol. Chem., 1916, xvi, p. 24, and unpublished data.

² Vedder & Williams, Philipp. Jour. Sci. (B), 1914, vol. 8, p. 175, and Fraser and Stanton, Lancet, 1915, vol. 1, p. 1021.

³ It should be stated that in a large series of experiments with corn bread made without the addition of soda one chicken, after several weeks, developed a temporary mild paralysis which was relieved by the administration of vitamins.

Chickens fed on corn bread made with 600 gm. of corn meal, 800 c. c. of sweet milk, and 10 gm. sodium chloride did not subsequently exhibit at any time symptoms of polyneuritis.

It should be strongly emphasized, however, that the old-fashioned way of combining baking soda with sour milk in the preparation of bread is a perfectly harmless procedure provided that sufficient sour milk is added fully to neutralize the alkalinity of the baking soda. The label of the brand of baking soda most in use in this section of the South (Spartanburg County, S. C.) clearly states that sour milk or tartaric acid should be added in order to obtain the best results. The prevalent use in this section of the country of baking soda without sour milk or tartaric acid seems to be due to the ignorance on the part of the housewives as to the need of an acid, as well as to the fact that it is often very difficult to obtain sour milk.

The writers do not mean to imply that the use of baking soda without sour milk will always lead to an injurious action on the health of persons eating the bread prepared by this method, although such bread is undoubtedly deficient in vitamins. However, when the other dietary components, outside of corn bread, are also deficient in vitamins the consumption of corn bread made with baking soda without the use of sour milk accentuates this dietary deficiency and may lead to an impairment of health.

In conclusion the writers would like to consider very briefly the bearing of these findings on the occurrence of pellagra in the South. A number of investigators have suggested that pellagra belongs to the group of so-called deficiency diseases, meaning that the diet which gives rise to pellagra is deficient in certain accessory foods (vitamins) having no direct relation to the protein, fat, and carbohydrate content of the diet. This hypothesis is based on the observation that the diet of people who develop pellagra seems to be made up of foods which are not rich in vitamins. In a general way the dietary studies in southern families made by the Experiment Station¹ of the Department of Agriculture, and some more detailed investigations by Voegtlin and Miss Nesbit (unpublished) seem to corroborate this observation. The last mentioned investigation is being carried out in Spartanburg County, S. C., in connection with the work of the Pellagra Field Hospital of the United States Public Health Service. The diet of the poorer classes of this section of the country contains large quantities of highly milled wheat flour, corn meal, fat pork, and fresh vegetables and is unquestionably poor in regard to its vitamin content. Pellagra has been endemic in Spartanburg County for at least seven or eight years. Previous to this time pellagra very probably occurred, but the disease was not so prevalent

¹ Bulletins No. 33, No. 71, and No. 221.

as at present. It is obvious that a satisfactory solution of the cause of this increase in pellagra incidence is intimately connected with the etiology of this disease. It is important that a satisfactory answer should be found as to how the dietary conditions of the population of the South changed previously to the great increase in pellagra.

We believe that this problem is quite complex, inasmuch as several factors must be taken into consideration. These are: (1) Changes in the economic conditions of the population; (2) changes in food production and food supply; (3) changes in the method of cooking food.

In regard to the influences of changes in the economic conditions of people on the composition of their diet it might be expected that a considerable decrease in the earning capacity of the poorer people, or an increase in the cost of foods, would be followed by changes in their diet. Everyday experience teaches that under such conditions the more expensive foods (meat, eggs, and milk) are reduced in the diet. People, as a whole, consume fewer eggs in the winter season when the supply of eggs is reduced and their cost correspondingly increased. Yet it seems that just these more expensive foods, such as milk, eggs, and meat, are efficient in the prevention and treatment of pellagra. These same foods are also rich in vitamins. A reduction of milk, eggs, and meat in the diet would, therefore, reduce its vitamin content, unless other dietary components rich in vitamins (legumes) were increased proportionately in the diet. An interesting example of the intimate relation between the appearance and disappearance of pellagra and changes in the economic conditions is found in the history of pellagra in France, referred to in a previous article.¹ Pellagra made its appearance in southwestern France (1820) soon after the reign of Napoleon, a period which was followed by extreme poverty. The available accounts characterize the diet of the people at that time as extremely monotonous, being largely composed of cereals, fat pork, and a few fresh vegetables. With the improvement of the economic conditions beginning with 1860 pellagra began to disappear, simultaneously, it seems, with an improvement in the diet of the people, which now includes more meat, milk, and eggs. At the present time pellagra is practically unknown in France. A better illustration of the intimate relation between economic conditions, diet, and pellagra could hardly be found.

Sydenstricker,² in a recent statistical study, calls attention to the relation of pellagra to the rise in the cost of foods in the United States. He points out that as a result of the economic depression beginning with the year 1907 the cost of food has increased out of proportion to the increase in wages, and that the pellagra incidence has also increased considerably since 1907. Simultaneously there took place a reduction in the diet of the people of such animal foods as milk,

¹ Jour. Am. Med. Assn., 1914, L.XIII, p. 1035.

² Sydenstricker, Public Health Rep., 1915, Oct. 22.

eggs, and meat. We fully agree with this author that the above-described relations between pellagra and increase in the cost of food may explain, at least partly, the more or less rapid increase in pellagra during the last decade. The resulting reduction in the diet of foods relatively rich in vitamins (milk, eggs, and meat) might, therefore, have led to a dietary deficiency.

The writers believe, however, that other factors as above indicated may also play a rôle. It is interesting to note that beginning with the year 1878 the introduction of highly milled corn and wheat products began. These highly milled products began to replace the old-fashioned undermilled cereal products. This change took place gradually and is not completed at the present time, as there are still a good many old-fashioned mills in the South. On the whole the South, due largely to the increase of cotton farming and a decrease of the raising of corn and wheat became more and more dependent on the North for its supply of cornmeal, grits, and wheat flour. It was found that practically all of these cereal products consumed in cotton-mill villages in Spartanburg County and in Spartanburg city were highly milled products imported from Northern States or manufactured by southern mills using modern methods of milling. By means of the P_2O_5 index this was easily demonstrated. Feeding experiments of these products and others obtained from various sections of the South also showed them to be deficient in vitamins.

It should be emphasized, however, that the authors met with cases of pellagra in farmers who lived on old-fashioned corn meal, ground in old-fashioned mills from home raised corn. Very often these persons stated that they bought their wheat flour at stores which sold only highly milled imported products. It is impossible to get accurate statistics on the substitution of highly milled cereals for the undermilled products of former days, but from statements of wholesale dealers supplying this section of the country (Spartanburg County, S. C.), it would appear that during the last 15 or 20 years there has been a gradual increase in the highly milled products. This same period has also seen the great increase in the pellagra incidence.

Concerning the use of baking soda in the preparation of bread, it was found from inquiries made among housekeepers that the use of baking soda became very common some 20 years ago, simultaneously with the introduction of highly milled corn meal. It is difficult to ascertain how rapidly the use of baking soda in cooking was taken up by the people. The writers' experience in the cotton-mill villages of Spartanburg County has demonstrated that most of the families use this preparation at the present time, not only for baking bread, but even in the cooking of beans and other foods. This last-mentioned use of baking soda is the result of carelessness in cooking on the part of housewives in cotton-mill villages. Very often the

person who attends to the cooking is also working in the mill, and has very little available time for the preparation of food for the family. Under these conditions the baking soda is added to beans and other foods in order to shorten the time of cooking, as the baking soda, when added to the water in which the beans are cooked, will cause the rapid softening of this food. There can be little doubt as to the greater or less destructive action of the soda on the vitamins of the beans under these conditions, although no direct experiments have been made on this point.

We see, therefore, that several factors seem to have played a rôle in the reduction of the vitamin content of the diet of the people of Spartanburg County during the last 20 years. Most prominent among these influences are: First, the reduction in the diet of vitamin-rich foods (fresh milk, eggs, and meats); second, the introduction of highly milled cereals; and, third, the use of baking soda, which was shown to have a destructive action on the vitamin content of bread. From the most careful and detailed investigation of the dietary conditions of certain communities in Spartanburg County it is evident that a large proportion of the people, especially in mill villages, live on a diet which is deficient from the point of view of its vitamin content. Wheat biscuits made from highly milled wheat flour and corn bread made with baking soda without the addition of buttermilk are the staple articles of diet among the people, and we have found families in which these foods represented about three-fourths of the entire diet. The fact that the above-mentioned influences, which have undoubtedly reduced the vitamin content of the diet, made themselves felt a relatively short time before the rapid increase in the pellagra incidence in this section of the country, furnishes considerable evidence in favor of the vitamin-deficiency theory of pellagra. It will be left for future investigations to prove or disprove the correctness of this assumption for other pellagrous sections of the South. The reported results emphasize the fact that, in studying the etiology of any disease which is assumed to be of dietary origin, it is essential to pay careful attention to what might appear on superficial examination as trivial details.

BIOLOGICAL PRODUCTS.

ESTABLISHMENTS LICENSED FOR THE PROPAGATION AND SALE OF VIRUSES, SERUMS, TOXINS, AND ANALOGOUS PRODUCTS.

The following table contains a list of the establishments holding licenses issued by the Treasury Department in accordance with the act of Congress approved July 1, 1902, entitled "An act to regulate the sale of viruses, serums, toxins, and analogous products in the District of Columbia, to regulate interstate traffic in said articles, and for other purposes."

The licenses granted to the following establishments for the products mentioned do not imply an indorsement of the claims made by the manufacturers for their respective preparations. The granting of a license means that inspections of the establishment concerned and laboratory examinations of samples of its products are made regularly to insure the observance of safe methods of manufacture, to ascertain freedom from contamination, and to determine the potency of diphtheria antitoxin, tetanus antitoxin, and vaccine virus, for which potency standards have been established.

AMERICAN ESTABLISHMENTS.

No. of license.	Name.	Products.
1	Parke, Davis & Co., Detroit, Mich.	Antidysenteric serum; antigenococcic serum; antimeningococcic serum; antirabic virus; antistreptococcic serum; antitubercle serum; cholera vaccine prophylactic; diphtheria antitoxin; erysipelas and prodigiosus toxin; normal horse serum; tetanus antitoxin; thyroidectomized horse serum; tuberculin B. E., tuberculin B. F., tuberculin old, tuberculin T. R.; vaccine virus; bacterial vaccines made from acne bacillus, acne diplococcus, colon bacillus, Friedlander bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, streptococcus pyogenes, and typhoid bacillus; and modified bacterial derivatives prepared from colon bacillus, diphtheria bacillus, gonococcus, paratyphoid bacillus A, paratyphoid bacillus B, pneumococcus, pyocyaneus bacillus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, streptococcus pyogenes, and typhoid bacillus.
2	H. K. Mulford Co., Philadelphia, Pa.	Antianthrax serum; antidysenteric serum; antimellitens serum; antimeningococcic serum; antipneumococcic serum; antirabic virus; antistreptococcic serum; diphtheria antitoxin; normal horse serum; pollen vaccine; tetanus antitoxin; tuberculin B. E., tuberculin B. F., tuberculin old, tuberculin T. R.; vaccine virus; bacterial vaccines prepared from acne bacillus, cholera vibrio, colon bacillus, diphtheria bacillus, dysentery bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, micrococcus neoformans, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, plague bacillus, pneumococcus, pseudodiphtheria bacillus, pyocyaneus bacillus, staphylococcus albus, staphylococcus aureus, streptococcus pyogenes, and typhoid bacillus; and sensitized bacterial vaccines prepared from acne bacillus, cholera vibrio, colon bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, streptococcus pyogenes, and typhoid bacillus.

AMERICAN ESTABLISHMENTS—Continued.

No. of license.	Name.	Products.
3	Dr. H. M. Alexander & Co., Marietta, Pa.	Antirabic virus; antityphoid vaccine; diphtheria antitoxin; normal horse serum; tetanus antitoxin; tubercle bacillus extract Dixon, tubercle bacillus suspension Dixon, tuberculin B. E., tuberculin B. F., tuberculin old, tuberculin T. R.; and vaccine virus.
6	The Sles Laboratories, Swiftwater, Pa.	Antistreptococcal serum; diphtheria antitoxin; normal horse serum; tetanus antitoxin; and vaccine virus.
8	The Cutter Laboratory, Berkeley, Cal.	Antimeningococcal serum; antipneumococcal serum; antirabic virus; antistreptococcal serum; diphtheria antitoxin; normal horse serum; tetanus antitoxin; tuberculin B. E., tuberculin B. F., tuberculin old, tuberculin T. R.; vaccine virus; and bacterial vaccines prepared from <i>acne bacillus</i> , <i>colon bacillus</i> , <i>Friedlander bacillus</i> , <i>gonococcus</i> , <i>micrococcus catarrhalis</i> , <i>pertussis bacillus</i> , <i>pneumococcus</i> , <i>pseudodiphtheria bacillus</i> , <i>staphylococcus albus</i> , <i>staphylococcus aureus</i> , <i>staphylococcus citreus</i> , <i>streptococcus pyogenes</i> , and <i>typhoid bacillus</i> .
14	Bureau of Laboratories, Health Department, New York City.	Antigonococcal serum; antimeningococcal serum; antipneumococcal serum; antirabic virus; antistreptococcal serum; diphtheria antitoxin; normal horse serum; tetanus antitoxin; old tuberculin; vaccine virus; and bacterial vaccines prepared from <i>glanders bacillus</i> , <i>gonococcus</i> , <i>pertussis bacillus</i> , <i>pneumococcus</i> , <i>staphylococcus albus</i> , <i>staphylococcus aureus</i> , <i>streptococcus pyogenes</i> , and <i>typhoid bacillus</i> .
16	National Vaccine and Antitoxin Institute, Washington, D. C.	Diphtheria antitoxin; normal horse serum; tetanus antitoxin; vaccine virus; and bacterial vaccines prepared from <i>colon bacillus</i> , <i>Friedlander bacillus</i> , <i>gonococcus</i> , <i>micrococcus catarrhalis</i> , <i>micrococcus tetragenus</i> , <i>paratyphoid bacillus A</i> , <i>paratyphoid bacillus B</i> , <i>pneumococcus</i> , <i>pseudodiphtheria bacillus</i> , <i>pyocyaneus bacillus</i> , <i>staphylococcus albus</i> , <i>staphylococcus aureus</i> , <i>staphylococcus citreus</i> , <i>streptococcus pyogenes</i> , and <i>typhoid bacillus</i> .
17	Lederle Antitoxin Laboratories, Pearl River, N. Y.	Antigonococcal serum; antimeningococcal serum; antipneumococcal serum; antirabic virus; antistreptococcal serum; diphtheria antitoxin; normal horse serum; pollen vaccine; tetanus antitoxin; vaccine virus; and bacterial vaccines prepared from <i>acne bacillus</i> , <i>cholera vibrio</i> , <i>colon bacillus</i> , <i>Friedlander bacillus</i> , <i>gonococcus</i> , <i>influenza bacillus</i> , <i>meningococcus</i> , <i>micrococcus catarrhalis</i> , <i>paratyphoid bacillus A</i> , <i>paratyphoid bacillus B</i> , <i>pertussis bacillus</i> , <i>plague bacillus</i> , <i>pneumococcus</i> , <i>staphylococcus albus</i> , <i>staphylococcus aureus</i> , <i>staphylococcus citreus</i> , <i>streptococcus pyogenes</i> , and <i>typhoid bacillus</i> .
19	Serum Division, Memorial Institute for Infectious Diseases, 637 South Wood Street, Chicago, Ill.	Diphtheria antitoxin.
23	Bacterio - Therapeutic Laboratory, Asheville, N. C.	Watery extract of tubercle bacilli (von Ruck); modified tubercle bacillus derivative (von Ruck).

AMERICAN ESTABLISHMENTS—Continued.

No. of license.	Name.	Products.
30	Dr. G. H. Sherman, 419 St. Aubin Street, Detroit, Mich.	Bacterial vaccines prepared from acne bacillus, colon bacillus, Friedlander bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, streptococcus pyogenes, nonvirulent tubercle bacillus, and typhoid bacillus. Antirabic virus; and sensitized typhoid vaccine.
40	Hygienic Laboratory, California State Board of Health, Berkeley, Cal.	
43	The Abbott Laboratories, Abbott Alkaloidal Co., Chicago, Ill.	Bacterial vaccines prepared from acne bacillus, colon bacillus, Friedlander bacillus, gonococcus, pneumococcus, staphylococcus albus, staphylococcus aureus, streptococcus pyogenes, and typhoid bacillus.
46	New York Pasteur Institute, 361 West Twenty-third Street, New York City.	Antirabic virus.
49	Dr. W. T. McDougall, 707 Parallel Avenue, Kansas City, Kans.	Do.
50	St. Louis Pasteur Institute, 803 North Garrison Avenue, St. Louis, Mo.	Do.
51	The Upjohn Co., Kalamazoo, Mich.....	Bacterial vaccines prepared from colon bacillus, Friedlander bacillus, gonococcus, influenza bacillus, micrococcus catarrhalis, micrococcus tetragenus, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, streptococcus pyogenes, and typhoid bacillus.
52	E. R. Squibb & Sons' Research and Biological Laboratories, New Brunswick, N. J.....	Antigonococcal serum; antimeningococcal serum; antirabic virus; antistreptococcal serum; diphtheria antitoxin; leucocyte extract; normal horse serum; tetanus antitoxin; and bacterial vaccines prepared from acne bacillus, colon bacillus, gonococcus, meningococcus, pertussis bacillus, pneumococcus, pyocyanus bacillus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, streptococcus pyogenes, and typhoid bacillus.
53	Laboratory of Clinical Pathology, 1208 Wyandotte Street, Kansas City, Mo..	Antirabic virus.
54	Dr. James McI. Phillips, 2057 North High Street, Columbus, Ohio.	Do.
56	Eli Lilly & Co., Indianapolis, Ind.....	Antirabic virus, antistreptococcal serum, diphtheria antitoxin; normal horse serum; normal sheep serum; tetanus antitoxin; vaccine virus; and bacterial vaccines prepared from acne bacillus, colon bacillus, Friedlander bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, pyocyanus bacillus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, streptococcus pyogenes, and typhoid bacillus.
57	American Biological Co., 600 F Street, Washington, D. C.	Bacterial vaccines prepared from acne bacillus, gonococcus, staphylococcus albus, staphylococcus aureus, streptococcus pyogenes, and typhoid bacillus.

AMERICAN ESTABLISHMENTS—Continued.

No. of license.	Name.	Products.
58	Swan Myers Co., 219 North Senate Avenue, Indianapolis, Ind.	Bacterial vaccines prepared from colon bacillus, Friedlander bacillus, gonococcus, micrococcus catarrhalis, pertussis bacillus, pneumococcus, staphylococcus albus, staphylococcus aureus, streptococcus pyogenes, and typhoid bacillus.
59	International Laboratories, 65 Irving Place, New York City.	Leucocyte extract (rabbit).
60	Greeloy Laboratories, Inc., 655 Huntington Avenue, Boston, Mass.	Bacterial vaccines prepared from acne bacillus, colon bacillus, gonococcus, micrococcus catarrhalis, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, pyocyanus bacillus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, streptococcus pyogenes, and typhoid bacillus.
61	Stafford Biological Laboratories, Smith Building, Detroit, Mich.	Bacterial vaccines prepared from acne bacillus, colon bacillus, Friedlander bacillus, gonococcus, influenza bacillus, micrococcus catarrhalis, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, streptococcus pyogenes, and typhoid bacillus.

FOREIGN ESTABLISHMENTS.

11	Institut Pasteur de Paris, Paris, France. Selling agents for the United States: Pasteur Laboratories of America, 336 West Eleventh Street, New York City.	Antidysenteric serum, antimeningococcic serum, anti-plague serum, antiplague vaccine, antistreptococcic serum, antitetanic serum, antivenomous serum, and diphtheria antitoxin.
12	Chemische Fabrik auf Actien, Berlin, Germany.	Antigonococcus vaccine, antistreptococcic serum, diphtheria antitoxin, and tuberculin.
15	Burroughs, Wellcome & Co., London, England.	Anticolon bacillus serum, antidysenteric serum, antigonococcic serum, antimeningococcic serum, anti-staphylococcic serum, antistreptococcic serum, antitetanic serum, antityphoid serum, diphtheria antitoxin, normal horse serum, tuberculin, and bacterial vaccines prepared from acne bacillus, cholera vibrio, colon bacillus, influenza bacillus, gonococcus, micrococcus catarrhalis, micrococcus melitensis, pneumococcus, septus bacillus, staphylococci, streptococci, and typhoid bacillus.
21	Swiss Serum and Vaccine Institute, Berne, Switzerland.	Antidysenteric serum, antimeningococcic serum, anti-plague serum, antipneumonic serum, antistreptococcic serum, antitetanic serum, diphtheria antitoxin, tuberculin, and bacterial vaccines prepared from cholera vibrio, colon bacillus, plague bacillus, pneumococcus, staphylococci, streptococci, and typhoid bacillus.
22	Institut Bactériologique de Lyon, Lyons, France.	Antidiphtheric serum and normal goat serum.
24	Farbwerke, vormals Meister Lucius und Brüning, Hoechst on Main, Germany.	Antidysenteric serum, antimeningococcic serum, antipneumonic serum, antistreptococcic serum, antitetanic serum, diphtheria antitoxin, tuberculin.

FOREIGN ESTABLISHMENTS—Continued.

No. of license.	Name.	Products.
27	Institut Pasteur de Lille, Lille, France. Selling agents for the United States: Pasteur Laboratories of America, 336 West Eleventh Street, New York City.	Antivenomous serum.
29	The Behringwerk, Marburg, Germany..	Antitetanic serum and tuberculin.
31	E. Merck, Darmstadt, Germany.....	Antimeningococcic serum, antipneumonic serum, antistreptococcic serum, diphtheria antitoxin, Jequiritol serum, leucofermantin (antitryptic sheep serum), normal horse serum (liquid and dried), tuberculin, and bacterial vaccines prepared from colon bacillus, dysentery bacillus, gonococcus, pneumococcus, staphylococci, streptococci, and typhoid bacillus.
32	Kalle & Co., Biebrich, Germany.....	Tuberculin (Rosenbach).
35	Dr. Carl Spengler, Davos-Platz, Switzerland.	I. K. Immune blood.
38	Laboratorio di Terapia Sperimentale (Bruschettini), Genoa, Italy.	Tuberculosis serum vaccine and tuberculosis vaccine.
39	Pharmaceutisches Institut Ludwig Wilhelm Ganz, Oberursel bei Frankfurt a. M., Germany.	Antidysenteric serum.
48	Inoculation Department, St. Mary's Hospital, London, England.	Pollicine, and bacterial vaccines prepared from acne bacillus, gonococcus, influenza bacillus, pneumococcus, staphylococci, and streptococci.
55	Chemische Fabrik Güstrow, Güstrow i. M., Germany.	Staphylococcus vaccine.

PLAGUE-PREVENTION WORK.

CALIFORNIA.

The following report of plague-prevention work in California for the week ended March 25, 1916, was received from Surg. Creel, of the United States Public Health Service, in charge of the work:

SAN FRANCISCO, CAL.

RAT PROOFING.

New buildings:	
Inspections of work under construction.	238
Basements concreted (square feet, 41,220)	45
Floors concreted (square feet, 5,375).....	5
Yards, passageways, etc. (square feet, 10,848).....	76
Total area of concrete laid (square feet)...	57,443
Class A, B, and C (fireproof) buildings:	
Inspections made.....	152
Roof and basement ventilators, etc., screened.....	785
Wire screening used (square feet).....	4,070
Openings around pipes, etc., closed with cement.....	1,880
Sidewalk lens lights replaced.....	1,000
Old buildings:	
Inspections made.....	403
Wooden floors removed.....	25
Yards and passageways, planking removed.....	9

RAT PROOFING—continued.

Old buildings—Continued.

New foundation walls installed (cubic feet).....	3,815
Concrete floors installed (square feet, 14,040).....	18
Basements concreted (square feet, 12,200)	14
Yards and passageways, etc., concreted (square feet, 14,163).....	55
Total area concrete laid (square feet)....	40,403
Floors rat proofed with wire cloth (square feet, 4,158).....	4
Buildings razed.....	17
New garbage cans stamped approved.....	300
Nuisances abated.....	272
OPERATIONS ON THE WATER FRONT.	
Vessels inspected for rat guards.....	25
Reinspections made on vessels.....	24
New rat guards procured.....	13
Defective rat guards repaired.....	5
Vessels on which cargo was inspected.....	1

Amount of cargo inspected and description of same.	Condition.	Rat evidence.	Amount of cargo inspected and description of same.	Condition.	Rat evidence.
Steamer Governor from Seattle: 10 bales rags..... 180 cases cheese, apples, and milk.	O. K..... O. K.....	None. None.	Steamer Governor from Seattle—Continued. 200 sacks flour, peanuts, and rice. 12 tubs lard.....	O. K..... O. K.....	None. None.

Rats trapped on wharves and water front..	16	RATS COLLECTED AND EXAMINED FOR PLAGUE.	
Rats trapped on vessels.....	16	Collected.....	396
Traps set on wharves and water front.....	173	Examined.....	311
Vessels trapped on.....	10	Found infected.....	None.
Traps set on vessels.....	48		
Poisons placed within Panama-Pacific International Exposition grounds.....	42,000	RATS IDENTIFIED.	
Bait used on water front and vessels, bacon (pounds).....	1	Mus norvegicus.....	200
		Mus rattus.....	74
		Mus alexandrinus.....	68
		Mus musculus.....	5

SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE.

County.	Collected.	Examined.	Found infected.	County.	Collected.	Examined.	Found infected.
Monterey.....	332	332	3	Stanislaus.....	6	6	0
Contra Costa.....	116	116	0	Total.....	454	454	3

1 rabbit from Monterey County examined. Not infected.

RANCHES INSPECTED AND HUNTED OVER.

Monterey County.....	32
Contra Costa County.....	21
Stanislaus County.....	2
Total.....	55

PLAGUE-INFECTED SQUIRRELS.

Monterey County:	
Shot Mar. 10, 1916. C. Herbert ranch, 8 miles north of Salinas.....	2
Shot Mar. 14, 1916. Johnson ranch, 27 miles southeast of Salinas.....	1

RECORD OF PLAGUE INFECTION.

Places in California.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number rodents found infected since May, 1907.
Cities:				
San Francisco.....	Jan. 30, 1908	Oct. 23, 1908	(1)	398 rats.
Oakland.....	Aug. 9, 1911	Dec. 1, 1908	(1)	126 rats.
Berkeley.....	Aug. 28, 1907	(1)	(1)	(1)
Los Angeles.....	Aug. 11, 1908	(1)	Aug. 21, 1908	1 squirrel.
Counties:				
Alameda (exclusive of Oakland and Berkeley).	Sept. 24, 1909	Oct. 17, 1909	July 12, 1915	287 squirrels; 1 wood rat.
Contra Costa.....	July 13, 1915	(1)	Mar. 1, 1916	1,598 squirrels.
Fresno.....	(1)	(1)	Oct. 27, 1911	1 squirrel.
Merced.....	(1)	(1)	July 12, 1911	5 squirrels.
Monterey.....	(1)	(1)	Mar. 14, 1916	20 squirrels.
San Benito.....	June 4, 1915	(1)	Aug. 14, 1915	50 squirrels.
San Joaquin.....	Sept. 18, 1911	(1)	Aug. 26, 1911	18 squirrels.
San Luis Obispo.....	(1)	(1)	Jan. 29, 1910	1 squirrel.
Santa Clara.....	Aug. 31, 1910	(1)	July 23, 1913	25 squirrels.
Santa Cruz.....	(1)	(1)	May 17, 1910	3 squirrels.
Stanislaus.....	(1)	(1)	June 2, 1911	13 squirrels.

¹ None.

² Wood rat.

The work is being carried on in the following-named counties: Alameda, Contra Costa, San Francisco, Stanislaus, San Benito, Monterey, Lassen, and Modoc.

LOUISIANA—NEW ORLEANS—PLAGUE ERADICATION.

The following reports of plague-eradication work at New Orleans were received from Surg. Creel, of the United States Public Health Service, in charge of the work:

WEEK ENDED MAR. 25, 1916.

OUTGOING QUARANTINE.		LABORATORY OPERATIONS.	
Vessels fumigated with sulphur.....	6	Rodents received, by species:	
Vessels fumigated with cyanide gas.....	16	Mus rattus.....	262
Sulphur used (pounds).....	370	Mus norvegicus.....	1,379
Cyanide used in cyanide-gas fumigation (pounds).....	742	Mus alexandrinus.....	269
Sulphuric acid used in cyanide-gas fumigation (pints).....	1,120	Mus musculus.....	6,281
Clean bills of health issued.....	32	Wood rats.....	121
Foul bills of health issued.....	10	Musk rats.....	8
FIELD OPERATIONS.		Putrid (included in enumeration of species).....	254
Rodents trapped.....	8,263	Total rodents received at laboratory.....	8,320
Premises inspected.....	7,778	Rodents examined.....	2,262
Notices served.....	911	Rats suspected of plague.....	145
Garbage cans installed.....	7	Plague rats confirmed.....	2
BUILDINGS RAT PROOFED.		PLAGUE RATS.	
By elevation.....	200	Case No. 283:	
By marginal concrete wall.....	223	Address, 437 Seguin Street, Algiers, La.	
By concrete floor and wall.....	237	Captured, March 4, 1916.	
By minor repairs.....	535	Diagnosis confirmed, March 21, 1916.	
Total buildings rat proofed.....	1,195	Treatment of premises: Intensive trapping.	
Concrete laid (square yards).....	6,581	Removal of rubbish and debris.	
Premises—Planking and shed flooring removed.....	182	Case No. 284:	
Buildings demolished.....	160	Address, 217 Seguin Street, Algiers, La.	
Total buildings rat proofed to date (abated).....	108,476	Captured, March 10, 1916.	
		Diagnosis confirmed, March 22, 1916.	
		Treatment of premises: Intensive trapping.	
		Rat proofing initiated.	

WEEK ENDED APR. 1, 1916.

OUTGOING QUARANTINE.		LABORATORY OPERATIONS.	
Vessels fumigated with sulphur.....	5	Rodents received, by species:	
Vessels fumigated with cyanide gas.....	20	Mus rattus.....	116
Sulphur used (pounds).....	380	Mus norvegicus.....	1,209
Cyanide used in cyanide-gas fumigation (pounds).....	1,060	Mus alexandrinus.....	155
Sulphuric acid used in cyanide-gas fumigation (pints).....	1,551	Mus musculus.....	6,894
Clean bills of health issued.....	33	Wood rats.....	136
Foul bills of health issued.....	4	Musk rats.....	12
FIELD OPERATIONS.		Putrid (included in enumeration of species).....	209
Rodents trapped.....	8,463	Total rodents received at laboratory.....	8,522
Premises inspected.....	8,896	Rodents examined.....	2,029
Notices served.....	785	Rats suspected of plague.....	142
Garbage can installed.....	1	Plague rats confirmed.....	None.
BUILDINGS RAT PROOFED.		PLAGUE STATUS TO APR. 1, 1916.	
By elevation.....	210	Last case of human plague, Sept. 8, 1915.	
By marginal concrete wall.....	220	Last case of rodent plague, Mar. 16, 1916.	
By concrete floor and wall.....	261	Total number of rodents captured to Apr. 1. 665,270	
By minor repairs.....	426	Total number of rodents examined to Apr. 1. 341,067	
Total buildings rat proofed.....	1,117	Total cases of rodent plague to Apr. 1, by species:	
Concrete laid (square yards).....	6,052	Mus musculus.....	6
Premises—planking and shed flooring removed.....	187	Mus rattus.....	18
Buildings demolished.....	128	Mus alexandrinus.....	12
Total buildings rat proofed to date (abated).....	109,593	Mus norvegicus.....	248
		Total rodent cases to Apr. 1, 1916.....	284

¹ Indicates number of rodents the tissues of which were inoculated into guinea pigs. Most of them showed on necropsy only evidence of recent inflammatory process; practically none presented gross lesions characteristic of plague infection.

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

CEREBROSPINAL MENINGITIS.

City Reports for Week Ended Mar. 25, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Atlanta, Ga.....		1	Milwaukee, Wis.....	4	2
Baltimore, Md.....	1		New York, N. Y.....	5	3
Boston, Mass.....	2	1	Philadelphia, Pa.....	1	
Bridgeport, Conn.....	2		St. Louis, Mo.....	3	2
Cleveland, Ohio.....	4	2	Schenectady, N. Y.....	1	
Fall River, Mass.....	1		Somerville, Mass.....		1
Los Angeles, Cal.....		1	Wilmington, Del.....	2	
Manchester, N. H.....	1				

DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 955.

ERYSIPELAS.

City Reports for Week Ended Mar. 25, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....		1	Milwaukee, Wis.....	4	
Ann Arbor, Mich.....	1		Morristown, N. J.....	1	
Atlanta, Ga.....		1	New York, N. Y.....		15
Beaver Falls, Pa.....	1		Omaha, Nebr.....	1	
Boston, Mass.....		2	Passaic, N. J.....	1	1
Buffalo, N. Y.....	8		Philadelphia, Pa.....	17	3
Chicago, Ill.....	49	4	Pittsburgh, Pa.....	15	1
Cincinnati, Ohio.....	6		Portsmouth, Va.....		1
Cleveland, Ohio.....	7	1	Reading, Pa.....	7	1
Detroit, Mich.....	6		Rochester, N. Y.....	3	
Galesburg, Ill.....	1		St. Louis, Mo.....	13	1
Gardner, Mass.....	1	1	St. Paul, Minn.....	1	1
Harrisburg, Pa.....	1		Seattle, Wash.....		1
Hartford, Conn.....	1		Springfield, Ill.....	1	
Johnstown, Pa.....	3		Syracuse, N. Y.....	1	
Kalamazoo, Mich.....	2		Toledo, Ohio.....	1	
Kansas City, Mo.....	4	3	Williamsport, Pa.....	1	
Lancaster, Pa.....	2		York, Pa.....	1	
Los Angeles, Cal.....	2				

LEPROSY.**City Report for Week Ended Mar. 25, 1916.**

During the week ended March 25, 1916, one case of leprosy was reported at New Orleans, La.

MALARIA.**City Report for Week Ended Mar. 25, 1916.**

During the week ended March 25, 1916, one case of malaria was reported at Mobile, Ala.

MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 955.

PELLAGRA.**City Reports for Week Ended Mar. 25, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Atlanta, Ga.		1	Mobile, Ala.		1
Birmingham, Ala.	1	2	Nashville, Tenn.	1	
Charleston, S. C.		3	New York, N. Y.		1
Chattanooga, Tenn.		1	Northampton, Mass.	1	
Chicago, Ill.		1	Oklahoma City, Okla.		1
Los Angeles, Cal.	1	1	Richmond, Va.		1
Lynchburg, Va.		1			

PNEUMONIA.**City Reports for Week Ended Mar. 25, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.	2	4	Lorain, Ohio.	5	
Berkeley, Cal.	2	1	Los Angeles, Cal.	7	3
Binghamton, N. Y.	5		Manchester, N. H.	6	6
Birmingham, Ala.	6	9	Newport, Ky.	1	1
Braddock, Pa.	2		Norfolk, Va.	5	5
Buffalo, N. Y.		7	Ogden, Utah.	2	2
Chicago, Ill.	260	122	Pasadena, Cal.	1	
Cleveland, Ohio.	46	41	Philadelphia, Pa.	95	59
Coffeyville, Kans.	2		Pittsburgh, Pa.	41	32
Columbus, Ohio.	2	2	Reading, Pa.	1	5
Detroit, Mich.	7	25	Rochester, N. Y.	4	3
Duluth, Minn.	1	1	Saginaw, Mich.	1	
Grand Rapids, Mich.	6		San Francisco, Cal.	18	10
Harrisburg, Pa.	1	4	Schenectady, N. Y.	2	2
Kansas City, Mo.	14	11	Stelton, Pa.	4	
La Crosse, Wis.	1		Stockton, Cal.	1	1
Lancaster, Pa.	6		Wichita, Kans.	2	
Lexington, Ky.	1	2	York, Pa.	1	
Lincoln, Nebr.	1	1			

POLIOMYELITIS (INFANTILE PARALYSIS).**City Reports for Week Ended Mar. 25, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass.	1		Philadelphia, Pa.	1	
Chicago, Ill.		1	Trenton, N. J.	1	
Cincinnati, Ohio.	1				

ROCKY MOUNTAIN SPOTTED FEVER.**Montana—Bitter Root Valley.**

Surg. Fricks reported, March 25, 1916, that two cases of Rocky Mountain spotted fever had occurred in the Bitter Root Valley, Mont., one of the cases coming from O'Brien Creek, near Missoula, and the other from the valley west of Grantsdale. These are the first cases reported this season and represent an earlier outbreak than is usual in the Bitter Root Valley.

Oregon—Prairie City.

Dr. J. H. Fell, health officer of Grant County, Oreg., reported, March 26, 1916, the occurrence of a case of Rocky Mountain spotted fever on the Parsons ranch, Prairie City, Grant County, Oreg.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 955.

SMALLPOX.**Minnesota.**

Collaborating Epidemiologist Bracken reported that during the week ended April 8, 1916, four new foci of smallpox infection were reported in the State of Minnesota, cases of the disease having been notified as follows: Blue Earth County, Vernon Center, 2; Goodhue County, Stanton Township, 2; Nicollet County, Belgrade Township, 2; Nobles County, Olney Township, 1.

City Reports for Week Ended Mar. 25, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Butte, Mont.	1	.....	Lincoln, Nebr.	3	.....
Chicago, Ill.	1	.....	Little Rock, Ark.	2	.....
Danville, Ill.	2	.....	Milwaukee, Wis.	2	.....
Detroit, Mich.	14	.....	New Orleans, La.	4	.....
El Paso, Tex.	8	.....	Oklahoma City, Okla.	4	.....
Evansville, Ind.	4	.....	Rock Island, Ill.	10	.....
Fitchburg, Mass.	1	.....	St. Paul, Minn.	3	.....
Fort Wayne, Ind.	1	.....	Seattle, Wash.	1	.....
Galesburg, Ill.	4	.....	Springfield, Ill.	25	.....
Galveston, Tex.	2	.....	Toledo, Ohio.	13	.....
Kansas City, Kans.	3	.....	Wichita, Kans.	4	.....
Kansas City, Mo.	7	.....		

TETANUS.**City Reports for Week Ended Mar. 25, 1916.**

During the week ended March 25, 1916, tetanus was reported by cities as follows: Chicago, Ill., 1 case and 1 death; El Paso, Tex., 1 case; Los Angeles, Cal., 2 deaths; Reading, Pa., 1 death.

TUBERCULOSIS.

Correction.

The table, "City reports for week ended Mar. 18, 1916," which appeared on page 894 of the Public Health Reports of April 7, 1916, under the heading "Tuberculosis" should have appeared under the heading "Smallpox."

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 955.

TYPHOID FEVER.

City Reports for Week Ended Mar. 25, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alameda, Cal.	3		Milwaukee, Wis.	25	4
Baltimore, Md.	3		Nashville, Tenn.	1	
Binghamton, N. Y.		2	New London, Conn.		1
Birmingham, Ala.	1	1	New Orleans, La.	4	1
Boston, Mass.	1	1	New York, N. Y.	17	3
Brockton, Mass.	1		Oakland, Cal.	2	
Buffalo, N. Y.		1	Pasadena, Cal.	1	
Camden, N. J.	1		Philadelphia, Pa.	6	
Canton, Ohio.	1		Pittsburgh, Pa.	3	
Charleston, S. C.	3	1	Portland, Oreg.	1	
Chelsea, Mass.	1		Providence, R. I.		2
Chicago, Ill.	17	7	Reading, Pa.		
Cleveland, Ohio.	1	1	Richmond, Va.	1	1
Detroit, Mich.	3	3	Rockford, Ill.	1	
Elizabeth, N. J.	1		Sacramento, Cal.	1	1
El Paso, Tex.	1	1	St. Louis, Mo.	3	4
Erie, Pa.	1		San Diego, Cal.	1	
Fall River, Mass.	1		Somerville, Mass.	1	
Galesburg, Ill.	2		Steubenville, Ohio.	1	
Galveston, Tex.	3		Stockton, Cal.	2	2
Grand Rapids, Mich.	1		Syracuse, N. Y.		3
Harrisburg, Pa.	1		Tacoma, Wash.	2	
Haverhill, Mass.	1		Tampa, Fla.	3	
Kansas City, Kans.	2		Toledo, Ohio.	3	
Kansas City, Mo.	2		Washington, D. C.	1	
Kearny, N. J.	1		Wichita, Kans.	3	1
Lancaster, Pa.	1		Wilmington, Del.	2	
Lawrence, Mass.	2		York, Pa.	1	
Los Angeles, Cal.	3	1	Zanesville, Ohio.	1	
Lowell, Mass.	1	1			

TYPHUS FEVER.

City Report for Week Ended Mar. 25, 1916.

During the week ended March 25, 1916, one case of typhus fever was reported at New York, N. Y.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended Mar. 25, 1916.

City.	Population as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.	584,605	227	13	2	292	3	40	1	33	29
Boston, Mass.	745,139	234	48	1	151	1	60	1	36	17
Chicago, Ill.	2,447,045	811	115	17	261	6	327	5	315	100
Cleveland, Ohio.	656,975	199	30	1	234		30	1	34	24
Detroit, Mich.	554,717	255	31	3	152	8	31		29	26
New York, N. Y.	5,468,190	1,624	347	34	772	22	226	7	364	175
Philadelphia, Pa.	1,683,664	585	65	9	426	5	51		92	60
Pittsburgh, Pa.	571,984	221	28	1	271	6	16		32	18
St. Louis, Mo.	745,988	229	44		151		42	2	30	28
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y.	461,335	109	10	1	112	3	8		38	12
Cincinnati, Ohio.	406,706	160	29	1	346	6	6		33	26
Jersey City, N. J.	300,133	106		1						10
Los Angeles, Cal.	465,367	118	10		22				58	18
Milwaukee, Wis.	428,062	134	6	3	400	7	37		23	6
New Orleans, La.	366,484	144	17	1	7				35	28
San Francisco, Cal.	1,416,912	164	46	5			49			22
Seattle, Wash.	330,834	46			96				14	3
Washington, D. C.	358,679		3	1	77		17		20	24
From 200,000 to 300,000 inhabitants:										
Columbus, Ohio.	209,722	71	3	1	12		3		7	4
Kansas City, Mo.	289,879		6	1	205	6	65	5	2	6
Portland, Oreg.	272,833	44	1		6		4		10	6
Providence, R. I.	250,025	67	11	1	49	4	20			5
Rochester, N. Y.	250,747	62	1	1	43		12		7	2
St. Paul, Minn.	241,990	61	9	1	96		7	1	12	2
From 100,000 to 200,000 inhabitants:										
Atlanta, Ga.	184,873	56	3				1			7
Birmingham, Ala.	174,108	35					3		9	6
Bridgeport, Conn.	118,434	45	2				2		11	3
Cambridge, Mass.	111,669	36	10	1	11		7	1	7	4
Camden, N. J.	104,349		5		6		2		2	
Fall River, Mass.	126,904		4		10		5		6	3
Grand Rapids, Mich.	125,759	40			15		19		27	
Hartford, Conn.	108,969		9	2	155	10	2		4	1
Lowell, Mass.	112,124	46	6		6		2	1	3	5
Lynn, Mass.	100,316	23	5		15	1	14		4	2
Nashville, Tenn.	115,978	47			1		1		5	3
New Bedford, Mass.	114,694	40	1				3		10	6
New Haven, Conn.	147,095		2		2		2		10	4
Oakland, Cal.	190,803		1	1			8		3	3
Omaha, Nebr.	135,455		4		5		38	5	2	3
Reading, Pa.	105,094	43			52	1	11	1	1	1
Richmond, Va.	154,674	65	2		292		3		12	7
Springfield, Mass.	103,216	32	3		33		9			1
Syracuse, N. Y.	152,534	47	13		5		1		8	5
Tacoma, Wash.	108,094		2				2		6	
Toledo, Ohio.	187,840	59	5	1	353	2	8		6	5
Trenton, N. J.	109,212	44	5		7	1	2		10	2
Worcester, Mass.	160,523	62	5		63	2	3		11	6
From 50,000 to 100,000 inhabitants:										
Akron, Ohio.	82,958	38	3		67		11		8	5
Atlantic City, N. J.	55,806	12	2						4	
Bayonne, N. J.	67,582	14								3
Berkeley, Cal.	54,879	13	2	1	2		3		2	1
Binghamton, N. Y.	53,082	24	5	2	4		2		2	1
Brockton, Mass.	65,746	27	1		272	1	4		2	3
Canton, Ohio.	59,139	14	3		6		8			
Charleston, S. C.	60,427	31	1				1			3
Chattanooga, Tenn.	58,576	18	1				1		2	6
Covington, Ky.	56,520	13	2		20		1		2	2
Duluth, Minn.	91,913	27			127		8	1	4	1
Elizabeth, N. J.	84,559	16	3	1	3		3		10	1
El Paso, Tex.	51,936	46	1		17		1			12
Erie, Pa.	73,798	36	6		102		1		5	
Evansville, Ind.	72,125	14	3	1	3				2	4

* Population Apr. 15, 1910; no estimate made.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended Mar. 25, 1916—Continued.

City.	Population as of July 1, 1915 (esti- mated by U. S. Cen- sus Bu- reau).	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tuber- culosis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
From 50,000 to 100,000 inhabit- ants—Continued.											
Fort Wayne, Ind.	74,352	25			105	1				3	
Harrisburg, Pa.	70,754	37	3	1	249	2			7	5	
Hoboken, N. J.	76,104	44	11		25	2	17	1	3	4	
Johnstown, Pa.	66,585	21			70		2		3		
Kansas City, Kans.	96,854		1		57		6	1	2		
Lancaster, Pa.	50,269		3		14		2				
Lawrence, Mass.	98,197	32	8		29		5		3		
Little Rock, Ark.	55,158	32	1		2						
Malden, Mass.	50,067	13	1		3					1	
Manchester, N. H.	76,959	30	3		80		3		1	1	
Mobile, Ala.	56,536	17							1	3	
New Britain, Conn.	52,203		2		197						
Norfolk, Va.	88,076				8				6	6	
Oklahoma, Okla.	88,158	14					5	1			
Passaic, N. J.	69,010	22	1		30		2		2		
Pawtucket, R. I.	58,156	28					4			3	
Rockford, Ill.	53,761		1		26		6				
Sacramento, Cal.	64,806	30					2		4	8	
Saginaw, Mich.	54,815	14	1		66		2		1	1	
San Diego, Cal.	51,115	18	2		71		1		6	6	
Schenectady, N. Y.	95,265	18	3		7				5	4	
Somerville, Mass.	85,460	26	5	1	2		7		5	1	
South Bend, Ind.	67,039	14		1	44		8				
Springfield, Ill.	59,468				32		3			1	
Tampa, Fla.	51,521				1		1				
Troy, N. Y.	77,738				8		4		2	5	
Wichita, Kans.	67,847				4		1		3		
Wilkes-Barre, Pa.	75,218	32	2		4				12		
Wilmington, Del.	93,161	127	2		112		4				
York, Pa.	50,543		1		38				3		
From 25,000 to 50,000 inhabit- ants:											
Alameda, Cal.	27,031	5					1		1	1	
Butler, Pa.	26,587	2			23						
Butte, Mont.	42,918	27	2		124					3	
Chelsea, Mass.	32,452	9	3		12		3		4		
Chicopee, Mass.	28,688	7					1		2	1	
Cumberland, Md.	25,564	11			97				1	1	
Danville, Ill.	31,554	8	1		133		2		5	1	
East Orange, N. J.	41,155	3	3		15		3		4		
Elgin, Ill.	27,844	6			1		1				
Everett, Mass.	38,307	3	1		2		3		2		
Everett, Wash.	33,767	6								1	
Fitchburg, Mass.	41,144	16	5	1	20		1		3	1	
Galveston, Tex.	41,076	11	3				1		1	2	
Haverhill, Mass.	47,774	20	7	2	10		2		5	1	
Kalamazoo, Mich.	47,364	18					1		8	2	
Kenosha, Wis.	30,319	6			3		3		4		
Knoxville, Tenn.	38,300				38		1				
La Crosse, Wis.	31,522	9	2		10				1	3	
Lexington, Ky.	39,703	12	1		4		2		6	1	
Lincoln, Nebr.	46,028	9			2						
Lorain, Ohio.	35,662	36			18		6				
Lynchburg, Va.	32,385	9			83	1			1	1	
Madison, Wis.	30,084		1		7		2			2	
Medford, Mass.	25,737	4	1		1				2		
Montclair, N. J.	25,550	2			29				1		
New Castle, Pa.	40,351		2		9		1			1	
Newport, Ky.	31,722	10					1		1	1	
Newport, R. I.	29,631	13	1		18		2			3	
Newton, Mass.	43,085	11			11		4		1		
Niagara Falls, N. Y.	36,240	19			72				2		
Norristown, Pa.	30,833	9			26		2				
Ogden, Utah.	30,466	6	1								
Orange, N. J.	32,524	13	4	1	83		1		4	1	
Pasadena, Cal.	43,859	12							1		
Perth Amboy, N. J.	39,725		3				3				
Pittsfield, Mass.	37,580	4	1						2		

¹ Population Apr. 15, 1910; no estimate made.

DIPHThERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended Mar. 25, 1916—Continued.

City.	Population as of July 1, 1915 (esti- mated) by U. S. Cen- sus Bu- reau).	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabit- ants—Continued.										
Portsmouth, Va.	38,610	18	1							
Racine, Wis.	45,507		3		35		15		3	1
Roanoke, Va.	41,929	14	1		5				1	
Rock Island, Ill.	27,961	10	2		5					
San Jose, Cal.	37,994	9					2			
Steubenville, Ohio.	26,631	6	1		39		1			
Stockton, Cal.	31,508	7							1	
Superior, Wis.	45,285	15	2		3		2	1		
Taunton, Mass.	35,957	26	1		1				1	
Waltham, Mass.	30,129	8			1		6			
West Hoboken, N. J.	41,893	2	3				1		2	
Wheeling, W. Va.	43,097	13			138	1	1			
Williamsport, Pa.	33,495	10	2		3				3	
Wilmington, N. C.	28,264	8							3	
Zanesville, Ohio.	30,406				19	1				
From 10,000 to 25,000 inhabitants:										
Ann Arbor, Mich.	14,979	12			1		2			
Beaver Falls, Pa.	13,316				1				1	
Braddock, Pa.	21,310				4					
Cairo, Ill.	15,593	5			1					
Clinton, Mass.	13,075	5								
Coffeyville, Kans.	16,765				2				1	
Concord, N. H.	22,480				6					
Galesburg, Ill.	23,323	2	1				1			
Gardner, Mass.	16,746	3	3		1		2			
Kearny, N. J.	22,753	6			14		4		2	
Kokomo, Ind.	20,312	5	2				1			
Long Branch, N. J.	15,057	4	1						1	
Marinette, Wis.	14,610									
Melrose, Mass.	17,166	6								
Morristown, N. J.	13,158	4	1		42		1		2	
Muscatine, Iowa.	17,287	5								
Nanticoke, Pa.	22,441		1						1	
Newburyport, Mass.	15,195	6							1	
New London, Conn.	20,771	15	1						1	
North Adams, Mass.	22,019	2								
Northampton, Mass.	19,846	8	2	2	1		2		4	1
Plainfield, N. J.	23,280	9			23		1		1	
Rutland, Vt.	14,624	4								
Saratoga Springs, N. Y.	12,842	6	6							
Steelton, Pa.	15,337	6			12					
Wilksburg, Pa.	22,361	3			32				2	
Woburn, Mass.	15,862	3								

¹ Population Apr. 15, 1910; no estimate made.

FOREIGN.

CHINA.

Examination of Rats—Hongkong.

During the week ended February 12, 1916, 1,915 rats were examined at Hongkong. No plague infection was found.

Examination of Rats—Shanghai.

During the week ended March 4, 1916, 282 rats were examined at Shanghai. No plague infection was found.

GREAT BRITAIN.

Examination of Rats—Liverpool.

During the two weeks ended March 11, 1916, 340 rats were examined at Liverpool. No plague infection was found.

INDIA.

Plague Mortality—Burma—January, 1916.

There was an increase in plague mortality during the month of January, 1916, the number of deaths being 1,241 as compared with 629 during the preceding month. It is also much higher than the figure for January, 1915, when 977 deaths were reported.

Of the total increase of 612, Mandalay alone is responsible for 350. Rangoon shows an increase of 87. The districts of Henzada and Tharrawaddy show an increase of 74 and 38 deaths, respectively. There were 25 deaths in the port of Bassein as against one in the previous month. Increases were also reported from the districts of Pegu, Prome, Bassein, Bhamo, and Myingyan.

MEXICO.

Typhus Fever—Measures for Control—Mexico City.

As reported by the superior board of health of Mexico, in its official bulletin, there were notified in Mexico City during the month of January, 1916, 2,001 cases of typhus fever with 488 deaths from the disease. Of these, 125 deaths occurred in persons between the ages of 30 and 50 years; 2 deaths occurred in the age period under 2 years.

A campaign for the eradication of typhus from the city was carried on under the direction of the superior board of health during the period from December 21, 1915, to January 31, 1916. The measures

adopted included house to house inspection; examination of patients to ascertain presence of typhus, resulting in the discovery of 225 cases; disinfection of infected localities, especially of houses in which repeated cases of typhus had occurred; inspection of public bathing establishments, theaters, churches, asylums, lodging houses, hospitals, eating places, and prisons; removal of persons evidently unclean from street cars; and a service of barbers and hair cutters to operate at the bathhouses with the object of eliminating the head louse; 3,068 persons had their hair cut for this purpose. Four bathing establishments were operated, 5,794 persons having been bathed during the period under report.

UNION OF SOUTH AFRICA.

Plague—New Focus Found—Orange Free State.

During the period from January 23 to February 20, 1916, 32 cases of plague with 20 deaths were notified in the Orange Free State. Of these, 5 cases with 1 death were in Europeans and 27 cases with 19 deaths among natives. During the week ended February 7, 1916, a new focus of infection was discovered in Senekal district, the disease having been previously discovered only in the Hoopstad and Winsburg districts.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During Week Ended Apr. 14, 1916.¹

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Bosnia-Herzegovina.....	Feb. 6-12.....	1		6 carriers.
India:				
Akyah.....	Jan. 16-29.....		1	
Bassein.....	Jan. 30-Feb. 5.....	1		
Calcutta.....	Feb. 6-12.....		10	
Pegu.....	Jan. 30-Feb. 5.....		1	
Rangoon.....	Feb. 6-19.....	12	11	
Java:				
Batavia.....	Jan. 11-17.....	2	1	
Philippine Islands:				
Manila.....	Feb. 20-26.....	2	1	
Siam:				
Bangkok.....	Jan. 30-Feb. 5.....	1	1	

PLAGUE.

Ceylon:				
Colombo.....	Feb. 13-19.....	6	6	
Egypt.....				Jan. 1-Mar. 2, 1916: Cases, 98; deaths, 56.
Assiout province.....	Feb. 27-Mar. 2.....	10	4	2 fatal cases, pneumonic.
Fayoum province.....	Feb. 26-Mar. 2.....	17	7	
Gizeh province.....	Feb. 25.....	2		
Minieh province.....	Feb. 26.....	1	1	Pneumonic.
India.....				Jan. 16-Feb. 19, 1916: Cases, 44,907; deaths, 35,229.
Bassein.....	Jan. 30-Feb. 5.....		3	
Bombay.....	Feb. 20-26.....	53	42	
Benzada.....	Jan. 23-29.....		15	
Mandalay.....	Jan. 30-Feb. 5.....		165	
Pegu.....	Jan. 30-Feb. 5.....		8	

¹From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER— Continued.

Reports Received During Week Ended Apr. 14, 1916—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India—Continued.				
Prome.....	Jan. 30-Feb. 5.....		9	
Rangoon.....	Feb. 6-19.....	172	160	
Toungoo.....	Jan. 30-Feb. 5.....		1	
Indo-China:				
Saigon.....	Feb. 7-27.....	26	10	
Siam:				
Bangkok.....	Jan. 16-Feb. 12.....	52	62	
Union of South Africa:				
Orange Free State.....	Feb. 14-20.....	2	2	Total, Jan. 23-Feb. 20, 1916: Cases, 32; deaths, 20.

SMALLPOX.

Brazil:				
Rio de Janeiro.....	Feb. 6-12.....	11	2	
Canada:				
Alberta—				
Calgary.....	Mar. 18-25.....	1		
China:				
Antung.....	Feb. 28-Mar. 5.....	1		
France:				
Marseille.....	Feb. 1-29.....		1	
India:				
Basseln.....	Jan. 30-Feb. 5.....		1	
Bombay.....	Feb. 20-26.....	110	40	
Java.....				Jan. 1-17, 1916: Cases, 38; deaths, 9.
Batavia.....	Jan. 11-17.....	3	2	
Mexico:				
Aguascalientes.....	Mar. 20-26.....		28	
Guadalajara.....	Mar. 19-25.....	8	1	
Juarez.....	To Mar. 19.....	5		
Mazatlan.....	Mar. 15-21.....		1	
Piedras Negras.....	Mar. 19-Apr. 3.....	15	3	
Netherlands:				
Amsterdam.....	Feb. 13-Mar. 11.....	9	2	
Spain:				
Madrid.....	Feb. 1-29.....		38	
Valencia.....	Feb. 20-Mar. 4.....	25	1	
Straits Settlements:				
Penang.....	Jan. 23-29.....	2		
Singapore.....	Feb. 6-12.....	2		

TYPHUS FEVER.

Argentina:				
Rosario.....	Oct. 1-31.....		1	
Do.....	Jan. 1-31.....		1	
Austria-Hungary:				
Hungary.....	Jan. 24-Feb. 6.....	50	4	
Germany:				Feb. 27-Mar. 4, 1916: Cases, 4; 1 death. In prison camps in Württemberg and Saxony.
Berlin.....	Feb. 20-26.....		1	
Bremen.....	Feb. 13-26.....	1	2	
Erfurt.....	Feb. 6-Mar. 4.....		2	
Frankfort on Main.....	Mar. 5-11.....		1	
Königsberg.....	Feb. 27-Mar. 4.....	3		
Great Britain:				
Liverpool.....	Mar. 5-11.....	1	1	
Java:				
Batavia.....	Jan. 11-17.....	4	2	
Samarang.....	Jan. 1-7.....	1	1	
Mexico:				
Aguascalientes.....	Mar. 20-26.....		11	
Guadalajara.....	Mar. 19-25.....	20	4	
Juarez.....	To Mar. 19.....	5		
Mexico City.....	Jan. 1-31.....	2,001	188	
Russia:				
Moscow.....	Nov. 28-Dec. 11.....	22		
Sweden:				
Stockholm.....	Feb. 20-26.....	4		
Spain:				
Madrid.....	Feb. 1-29.....		1	
Turkey in Asia:				
Beirut.....	Jan. 23-29.....	5	3	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER— Continued.

Reports Received from Jan. 1 to Apr. 7, 1916.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary				
Austria	Nov. 7-Dec. 18	209	66	Total, Oct. 25, 1915-Jan.-2, 1916; Cases, 412; deaths, 165.
Do	Jan. 1-Feb. 12	144	49	
Bosnia-Herzegovina	Dec. 23-Jan. 3	8	6	
Do	Jan. 9-15	11	6	
Croatia-Slavonia	Oct. 18-Dec. 20	247	105	
Do	Jan. 3-31	138	126	
Hungary	Oct. 18-Jan. 2	339	197	Nov. 18-Dec. 10, 1915: Cases, 675; deaths, 276. In a prison camp.
Do	Jan. 10-16	2	2	
Borneo:				
Putatan	Oct. 17-23	2		
India:				
Bassein	Nov. 28-Jan. 1		29	
Do	Jan. 2-22		7	
Bombay	Jan. 16-22	1		
Calcutta	Oct. 31-Jan. 1		139	
Do	Jan. 2-Feb. 5		70	
Benazada	Oct. 7-Nov. 27		3	
Madras	Nov. 7-Dec. 4	5		
Do	Jan. 2-Feb. 19	23	19	
Madras Presidency	Nov. 26		12	
Mandalay	Oct. 24-Dec. 18		46	
Mergul	Oct. 23-Jan. 1		12	
Do	Jan. 2-15		21	
Myingyan	Oct. 19-Dec. 25		15	
Pakkoku	Oct. 10-Nov. 6		45	
Pegu	Jan. 16-22		2	
Prome	Nov. 14-Jan. 1		106	
Rangoon	Oct. 31-Jan. 1	88	69	
Do	Jan. 2-Feb. 5	40	26	
Tavoy	Dec. 5-Jan. 1		18	
Do	Jan. 2-15		9	
Toungoo	Oct. 7-Dec. 11		47	
Yenangyaung	Nov. 2	1	1	American.
Indo-China				Sept. 1-30, 1915: Cases, 813; deaths, 549.
	1915.			
Anam Province	Sept. 1-30	127	92	
Cambodia Province	do.	1	1	
Cochin China Province	do.	15	8	
Saigon	Oct. 25-Nov. 28	4	3	
Do	Jan. 3-23	3	1	
Tonkin Province	Sept. 1-30	670	448	
Java				Oct. 15-Nov. 15, 1915: Cases, 69; deaths, 48. Nov. 12-Dec. 6, 1915: Cases, 17; deaths, 10.
Batavia	Oct. 26-Dec. 27	55	36	Vicinity of Batavia.
Brebes	Oct. 15-Dec. 9	10	10	
Cheribon	Dec. 28-Jan. 3	1		
Persia:				
Enzeli	Nov. 6-12		10	Nov. 22, 1915: Still present. Present.
Do	Feb. 6			
Essaleme	Nov. 28		7	
Gazian	Nov. 6-12		4	
Karkhan-Roud	Nov. 28		38	And in vicinity.
Kazvin	Nov. 27		10	
Resht	Nov. 24			And vicinity: Present. Present.
Do	Feb. 6			
Philippine Islands:				
Manila	Dec. 26-Jan. 1	1	1	
Do	Jan. 2-Feb. 12	20	11	
Russia:				
Moscow	Nov. 14-27	4	1	
Siam:				
Bangkok	Jan. 9-15		1	
Turkey in Asia:				
Trebizond	Dec. 2-4	15	10	Dec. 1-31, 1915: Present. Present.
Do	Jan. 8			

PLAGUE.

Brazil:			
Bahia	Nov. 21-Feb. 19	18	11
Ceylon:			
Colombo	Oct. 24-Dec. 25	37	31
Do	Jan. 2-Feb. 12	23	22
China:			
Hongkong	Nov. 7-Jan. 1	4	4
Do	Jan. 2-8	1	1

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER— Continued.

Reports Received from Jan. 1 to Apr. 7, 1916—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Ecuador:				
Guayaquil.....	Nov. 1-30.....	1	1	
Egypt.....				Jan. 1-Dec. 31, 1915: Cases, 285; deaths, 120. Jan. 1-Feb. 24; 1916: Cases, 68; deaths, 43.
Alexandria.....	Dec. 23-31.....	2		
Assiout Province.....	Dec. 17-31.....	4	2	
Do.....	Jan. 2-Feb. 24.....	18	7	
Fayoum Province.....	Jan. 23-Feb. 17.....	4	6	
Garbieh Province.....	Dec. 6-23.....	6	4	
Do.....	Jan. 10-Feb. 13.....	2	1	
Girfeh Province.....	Feb. 18.....	1	1	
Gizeh Province.....	Dec. 27.....	1	1	
Keneh Province.....	Feb. 15-22.....	4	3	
Minieh Province.....	Nov. 27-Dec. 31.....	13	9	
Do.....	Jan. 1-Feb. 23.....	27	18	
Port Said.....	Aug. 13-Nov. 1.....	3	2	
Suez.....	Jan. 10.....	1		On s. s. Syria from Bombay.
Greece:				
Athens.....	Dec. 8-20.....		1	
Piræus.....	Jan. 29.....	7	5	
Syra Island.....	Jan. 16.....	16	19	
India.....				Oct. 31, 1915-Jan. 1, 1916: Cases, 40,533; deaths, 34,225. Jan. 2-Feb. 5, 1916: Cases, 41,291; deaths, 31,888.
Bassein.....	Dec. 26-Jan. 1.....		3	
Do.....	Jan. 2-29.....		23	
Bombay.....	Nov. 9-Jan. 1.....	53	51	
Do.....	Jan. 2-Feb. 19.....	139	110	
Calcutta.....	Nov. 21-27.....		1	
Do.....	Jan. 2-15.....		1	Jan. 2-8: Present.
Henzada.....	Dec. 26-Jan. 1.....		1	
Do.....	Jan. 2-16.....		30	
Karachi.....	Nov. 7-20.....		2	
Madras.....	Jan. 2-8.....	2		
Madras Presidency.....	Oct. 16-Nov. 5.....		118	Madras Presidency, Aug. 1, 1898, to June 30, 1915: Cases, 141,356; deaths, 109,005.
Do.....	Nov. 12-Jan. 1.....	1,839	1,288	
Do.....	Jan. 9-Feb. 19.....	3,408	2,375	
Mandalay.....	Oct. 21-Jan. 1.....		266	
Do.....	Jan. 2-29.....		662	
Pegu.....	Jan. 9-29.....		4	
Prome.....	do.....		4	
Rangoon.....	Oct. 1-Dec. 18.....	68	66	
Do.....	Jan. 2-29.....	122	111	
Toungoo.....	Jan. 16-29.....		3	
Indo-China.....				Sept. 1-30, 1915: Cases, 72; deaths, 65.
	1915.			
Anam, Province.....	Sept. 1-30.....	9	5	
Cambodia, Province.....	do.....	20	19	
Cochin China, Province.....	do.....	2		
Saigon.....	Oct. 25-Dec. 5.....	8	5	
Do.....	Jan. 3-23.....	15	8	
Tonkin, Province.....	Sept. 1-30.....	41	41	
Java.....				Nov. 19-Dec. 30, 1915: Cases, 1,689; deaths, 1,638. Year 1915: Cases, 4,884; deaths, 4,482; among Chinese and natives.
Kediri residency.....	Oct. 22-Dec. 30.....	527	507	
Madison residency.....	Oct. 22-Nov. 11.....	1	1	
Paseroean residency.....	Oct. 22-Dec. 30.....	49	50	
Surabaya residency.....	do.....	24	24	
Surabaya.....	Nov. 5-Dec. 30.....	12	12	
Do.....	Jan. 1-14.....	11	11	
Surakarta residency.....	Oct. 22-Dec. 16.....	1,085	1,056	
Mauritius.....	Oct. 1-Dec. 30.....	8		
Peru.....				Jan. 1-Dec. 31, 1915: Cases, 455; deaths, 240. In addition, 18 cases, cause of disease unknown.
Ancachs department.....	Jan. 1 - Dec. 31, 1915.....	8	6	
Arequipa department.....	do.....	23	15	
Callao department.....	do.....	39	13	
Lambayeque department.....	do.....	102	38	
Libertad department.....	do.....	123	63	
Lima department.....	do.....	104	63	
Piura department.....	do.....	52	33	
Tumbes Province, Piura.....	do.....	4	9	
Russia:				
Siberia—				
Transbaikal Province.....	October, 1914.....	16	13	
Straits Settlement:				
Penang.....	Nov. 28-Dec. 4.....	1	1	
Singapore.....	Oct. 31-Dec. 18.....	5	2	
Siam:				
Bangkok.....	Nov. 14-20.....		1	
Do.....	Jan. 2-15.....		7	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER— Continued.

Reports Received From Jan. 1 to Apr. 7, 1916—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Union of South Africa: Orange Free State.....	Jan. 23-Feb. 7.....	11	11	In Hoopstad and Winsburg districts.
At sea.....	Dec. 29, 1915-Jan. 10, 1916.	4		On s. s. Syria from Bombay. Three cases left at Aden; 1 arrived Jan. 10, at Suez.

SMALLPOX.

Algeria:				
Algiers.....	Dec. 1-31.....	1		
Australia:				
New South Wales.....				Nov. 19-Dec. 30, 1915: Cases, 62. Jan. 7-Feb. 24, 1916: Cases, 27. Suburb of Sydney.
Auburn.....	Jan. 21-Feb. 4.....	2		
Bega district.....	Dec. 10-16.....	1		
Bulahdelah district.....	Jan. 3-6.....	1		
Chatswood district.....	Feb. 4-10.....	1		Do.
Cumdielown.....	Dec. 24-30.....	3		
Do.....	Jan. 7-13.....	2		
Forster district.....	Jan. 21-27.....	1		
Gloucester district.....	Dec. 10-16.....	1		
Kempsey.....	Jan. 7-13.....	1		On S. S. Yulgilbar from Sydney. Case returned to Sydney.
Newcastle district.....				Nov. 19-Dec. 30, 1915: Cases, 53. Jan. 7-Feb. 24, 1916: Cases, 16.
Wallsend.....	Jan. 3-6.....	1		
Rooty Hill district.....	Dec. 10-16.....	1		
Singleton district.....	Feb. 4-24.....	2		
Sydney.....	Dec. 3-30.....	10		
Do.....	Jan. 3-6.....	1		
Taree district.....	Jan. 7-13.....	2		
Wyong district.....	Jan. 3-6.....	1		
Austria-Hungary:				
Austria.....				Nov. 7-Dec. 4, 1915: Cases, 3,600. Jan. 16-22, 1916: Cases, 2,979.
Prague.....	Jan. 9-15.....	1		
Vienna.....	Dec. 10-Jan. 1.....	24	3	
Do.....	Jan. 2-Feb. 26.....	57	10	
Hungary—				
Budapest.....	Nov. 21-Dec. 31.....	373		In addition, Jan. 1-8, 3 among troops.
Do.....	Jan. 1-Feb. 26.....	73	2	
Brazil:				
Rio de Janeiro.....	Nov. 14-Jan. 1.....	147	31	
Do.....	Jan. 2-Feb. 5.....	42	13	
British East Africa:				
Mombasa.....	Dec. 1-31.....	2	2	
Canada:				
Alberta—				
Calgary.....	Mar. 5-11.....	1		
Manitoba—				
Winnipeg.....	Feb. 19-26.....	1		
Ontario—				
Fort William and Port Arthur.....	Dec. 19-25.....	1		
Do.....	Jan. 16-22.....	2		
Niagara Falls.....	Mar. 19-25.....	1		
Quebec—				
Montreal.....	Dec. 19-25.....	1		
Do.....	Jan. 16-Mar. 18.....	4		
Canary Islands:				
Grand Canary.....	Nov. 21.....			
Aruca.....	Dec. 5-18.....			Epidemic.
Las Palmas.....	Jan. 3-9.....		1	Present.
Ceylon:				
Colombo.....	Oct. 21-Nov. 13.....	6	2	
Do.....	Jan. 30-Feb. 5.....	1		
China:				
Antung.....	Jan. 3-9.....	1		
Foochow.....	Nov. 21-27.....			Do.
Do.....	Jan. 2-22.....			Do.
Harbin.....	Nov. 15-Dec. 26.....	12		
Do.....	Jan. 3-9.....	1		
Hongkong.....	Jan. 23-Feb. 5.....	2	2	
Tientsin.....	Nov. 21-27.....		2	
Nan'ing.....	Nov. 7-Dec. 18.....			Do.
Do.....	Jan. 16-29.....			Do.
Shanghai.....	Feb. 13-26.....	2		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER— Continued.

Reports Received From Jan. 1 to Apr. 7, 1916—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Colombia:				
Sinca.....	Jan. 23.....	9	.....	50 miles from Cartagena.
Cuba:				
Guantanamo.....	Jan. 16.....	1	.....	U. S. naval station. Case, mflid varioloid from U. S. S. Louisiana.
Do.....	Jan. 28-Feb. 8....	1	.....	U. S. naval station. Case, confluent form.
Egypt:				
Alexandria.....	Dec. 21-27.....	3	.....
Cairo.....	Sept. 3-Dec. 31....	9	1	
Port Said.....	Dec. 10-16.....	1	.....
France:				
Paris.....	Dec. 5-11.....	1	.....
Germany:				
Bavaria:				Jan. 2-8, 1916: Cases, 2.
Munich.....	Dec. 19-25.....	1	.....
Berlin.....	Feb. 20-26.....	1	.....
Breslau.....	Dec. 12-18.....	1	1	
Bromberg, Govt. district..	Jan. 2.....	1	.....
Dusseldorf.....	Dec. 5-11.....	1	.....
Gumbinnen, Govt. district.	Jan. 2-8.....	1	.....
Hamburg.....	Dec. 26-Jan. 1....	1	.....
Lüneburg, Govt. district..	Feb. 13-19.....	1	.....
Oppeln, Govt. district.....	Nov. 21-Dec. 25....	14	.....	Of these, 8 in one institution.
Do.....	Jan. 2-8.....	1	.....
Saxony.....	Nov. 21-Dec. 25....	1	.....
Great Britain:				
Bristol.....	Jan. 30-Feb. 5....	1	.....	On s. s. from Bombay.
Cardiff.....	Jan. 30-Mar. 11....	25	1	
Manchester.....	Feb. 20-26.....	1	.....
Greece:				
Piræus.....	Jan. 31.....	.....	.....	Present in virulent form.
Guatemala:				
Guatemala City.....	Jan. 9-Mar. 19....	.....	.....	Present.
India:				
Bombay.....	Nov. 7-Jan. 1....	103	67	
Do.....	Jan. 2-Feb. 19....	367	190	
Calcutta.....	Nov. 7-Jan. 1....	.....	3	
Do.....	Jan. 9-Feb. 5....	.....	8	
Karachi.....	Jan. 20-Feb. 22....	2	.....
Madras.....	Nov. 7-Jan. 1....	46	20	
Do.....	Jan. 2-Feb. 19....	292	88	
Rangoon.....	Oct. 31-Dec. 11....	14	7	
Do.....	Jan. 2-Feb. 5....	164	36	
Toungoo.....	Dec. 5-11.....	.....	1	
Italy:				
Turin.....	Nov. 22-Dec. 5....	6	.....
Japan:				
Yokohama.....	Jan. 17-Feb. 27....	5	.....
Java:				
Batavia.....	Nov. 1-Jan. 3....	41	16	Oct. 15-Dec. 30, 1915: Cases, 558; deaths, 118. Jan. 3-10, 1916: Cases, 53; deaths, 11.
Samarang.....	Nov. 12-22.....	2	.....
Malta.....	Dec. 1-31.....	1	.....
Manchuria:				
Harbin.....	Nov. 15-28.....	5	.....	See China.
Mexico:				
Agua Calientes.....	Dec. 13-Mar. 19....	.....	178	
Chihuahua.....	Jan. 3-9.....	1	1	
Frontera.....	Nov. 21-Dec. 25....	86	24	Dec. 26-31, 1915: Present.
Do.....	Jan. 1-Feb. 10....	.....	.....	Present. Estimated number cases, 70.
Guadalajara.....	Dec. 5-25.....	21	7	
Do.....	Jan. 2-Mar. 18....	72	17	
Hermosillo.....	Dec. 12-Mar. 4....	141	29	Feb. 13, from 50 to 100 (estimated) cases present within radius of 50 miles of city.
Juarez.....	Feb. 11.....	8	.....	Including 53 cases brought, Feb. 9-15, from Sonora.
Mazatlan.....	Jan. 26-Mar. 14....	65	25	Feb. 29, 2 cases on train from Mexico City to El Paso.
Mexico City.....				
Monterey.....	Dec. 13-19.....	5	3	
Do.....	Jan. 3-Mar. 19....	15	.....
Naco.....	Feb. 15.....	2	.....
Nogales.....	Feb. 7-Mar. 4....	27	3	
Piedras Negras.....	Jan. 10-Feb. 19....	5	2	
Progreso.....	Dec. 5-18.....	2	.....
Salina Cruz.....	Jan. 1-15.....	1	1	
Tampico.....	Dec. 7-31.....	.....	21	Jan. 14: Epidemic; estimated cases, 100.
Do.....	Jan. 1-Mar. 10....	.....	89	
Vera Cruz.....	Dec. 13-Jan. 1....	34	29	
Do.....	Jan. 3-Mar. 19....	91	79	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER— Continued.

Reports Received from Jan. 1 to Apr. 7, 1916—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Netherlands:				
Amsterdam.....	Jan. 15-Feb. 5....	9	1	
Persia:				
Teheran.....	Nov. 25-Dec. 10....		140	
Portugal:				
Lisbon.....	Dec. 5-26.....	4		
Do.....	Feb. 13-Mar. 11....	7		
Russia:				
Petrograd.....	Oct. 24-Dec. 25....	125	37	
Do.....	Jan. 2-Feb. 5.....	148	58	
Riga.....	Nov. 14-Jan. 1....	6		Aug. 1-31, 1915: Cases, 10; deaths, 1.
Siberia—				
Vladivostok.....	Dec. 29-Jan. 4....	10	3	
Siam:				
Bangkok.....	Nov. 28-Dec. 4....		1	
Spain:				
Cadiz.....	Dec. 1-31.....		1	
Madrid.....	Nov. 1-Dec. 31....		41	
Do.....	Jan. 1-31.....		30	
Seville.....	Dec. 1-31.....		7	
Do.....	Jan. 1-31.....		6	
Tarragona.....	Feb. 13-19.....		1	
Valencia.....	Nov. 21-Jan. 1....	141	10	
Do.....	Jan. 2-Feb. 19....	34	2	
Straits Settlements:				
Penang.....	Dec. 26-Jan. 1....	2	1	
Do.....	Jan. 2-22.....	9	4	
Singapore.....	Nov. 28-Jan. 1....	3		
Do.....	Jan. 16-Feb. 5....	7	2	
Switzerland:				
Basel.....	Nov. 29-Dec. 25....	43		
Do.....	Jan. 30-Mar. 4....	38		Jan. 16-22, 1916: Cases, 13; received out of date.
Turkey in Asia:				
Beirut.....	Oct. 16-Dec. 25....	75	31	
Do.....	Jan. 9-22.....	12	4	
Union of South Africa:				
Johannesburg.....	Oct. 17-23.....	2		
Uruguay:				
Montevideo.....	Oct. 1-31.....	1		
Venezuela:				
Tachira, State.....	Mar. 12.....			Present.

TYPHUS FEVER.

Austria-Hungary:				
Austria.....				Nov. 14-Dec. 1, 1915: Cases, 490.
Trieste.....	Feb. 6-12.....	6		Jan. 9-15, 1916: Cases, 235.
Vienna.....	Jan. 23-29.....	12	2	
Hungary—				
Budapest.....	Dec. 12-31.....	3	1	
Do.....	Jan. 1-Feb. 26....	14		
China:				
Antung.....	Nov. 22-Dec. 5....	2		
Cuba:				
Habana.....	Feb. 1-10.....	2	1	Imported from Mexico.
Egypt:				
Alexandria.....	Nov. 12-Dec. 31....	5	2	
Do.....	Jan. 1-Feb. 18....	14	8	
Cairo.....	Aug. 13-Dec. 31....	73	40	
Port Said.....	Nov. 19-Dec. 31....	1	2	
Germany:				Feb. 6-19, 1916: Cases, 69; deaths, 16; prisoners. Feb. 20-26, 1916: Cases, 39; deaths, 2.
Aix la Chapelle.....	Jan. 9-29.....		2	
Berlin.....	Nov. 21-Jan. 1....		7	
Do.....	Jan. 30-Feb. 5.....		3	
Bremen.....	Nov. 28-Dec. 4....	1	1	
Do.....	Jan. 23-29.....		1	
Bromberg, Govt. district.....	Feb. 20-26.....	1		
Dortmund.....	Dec. 12-18.....	1	1	
Erfurt.....	Dec. 19-25.....		1	
Do.....	Jan. 2-15.....		2	
Hanover.....	Nov. 21-Dec. 25....	2	2	
Do.....	Jan. 9-22.....	2	2	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER— Continued.

Reports Received from Jan. 1 to Apr. 7, 1916—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Königsberg.....	Nov. 28-Jan. 1....	10	.....
Do.....	Jan. 1-Feb. 26....	14	4	
Lübeck.....	Nov. 7-Dec. 31....	3	2	
Do.....	Jan. 1-8.....	1	.....
Marburg.....	Feb. 20-26.....	1	1	
Merseburg, Govt. district.....	Dec. 26-Jan. 1....	1	.....
Oppeln, Govt. district.....	Jan. 23-29.....	1	1	
Saxe-Coburg-Gotha.....	Dec. 5-18.....	3	.....
Do.....	Jan. 9-15.....	1	.....
Saxony.....	Feb. 20-26.....	37	1	
Stettin, Govt. district.....	Dec. 5-25.....	.....	6	
Do.....	Jan. 9-26.....	1	2	
Great Britain:				
Dundee.....	Dec. 12-18.....	3	.....
Glasgow.....	Feb. 11-Mar. 1....	9	.....
Liverpool.....	Dec. 5-18.....	3	2	
Manchester.....	Jan. 23-29.....	5	1	
Greece:				
Saloniki.....	Oct. 24-Feb. 6....	.....	206	Dec. 10: Present among troops.
Yehije-Vardar.....	Dec. 10.....	.....	.....	Present among troops.
Italy:				
Palermo.....	Dec. 13-19.....	3	.....
Do.....	Jan. 3-9.....	3	.....
Japan:				
Tokyo.....	Jan. 11-20.....	2	.....
Java:				
Batavia.....	Oct. 26-Jan. 10....	36	15	Oct. 15-Dec. 30, 1915: Cases, 42;
Samarang.....	Oct. 22-Dec. 7....	7	1	deaths, 28. Jan. 3-10, 1916:
Mexico:				Cases, 13; deaths, 2.
Aguascalientes.....	Dec. 13-Jan. 2....	.....	12	
Do.....	Jan. 10-Mar. 19....	.....	37	
Guadalajara.....	Dec. 25-31.....	6	2	
Do.....	Feb. 6-Mar. 18....	82	21	
Hermosillo.....	Feb. 4-22.....	3	3	
Mexico City.....	Dec. 23.....	.....	.....	Prevalent.
Do.....	Jan. 12.....	.....	1	
Monterey.....	Jan. 3-9.....	1	.....
Oaxaca.....	Dec. 9.....	1	1	American.
Piedras Negras.....	Mar. 5-18.....	2	.....
Queretaro.....	Dec. 16.....	.....	.....	Prevalent. Estimated number
Salina Cruz.....	Dec. 16-21.....	1	.....	cases, 500.
Do.....	Feb. 1-15.....	1	.....	In person from Mexico City.
Tampico.....	Dec. 1-31.....	.....	1	
Do.....	Jan. 11-20.....	.....	1	
Vera Cruz.....	Feb. 7-27.....	.....	2	
Russia:				
Moscow.....	Dec. 7-27.....	28	5	
Do.....	Jan. 2-Feb. 19....	557	62	
Petrograd.....	Oct. 24-Dec. 25....	34	6	
Do.....	Jan. 2-Feb. 5....	24	8	
Riga.....	Nov. 14-20.....	12	.....
Vladivostok.....	Oct. 8-Nov. 13....	21	6	
Spain:				
Madrid.....	Nov. 1-30.....	.....	1	
Sweden:				
Stockholm.....	Dec. 26-Jan. 1....	1	.....
Do.....	Feb. 6-19.....	1	.....
Switzerland:				
Zurich.....	.....do.....	1	.....
Do.....	Jan. 16-22.....	1	.....
Turkey in Asia:				
Aleppo.....	Oct. 26-Nov. 1....	.....	.....	Estimated deaths, 200 daily.
Beirut.....	Nov. 21-27.....	7	3	
Mersina.....	.....do.....	3	.....

YELLOW FEVER.

Ecuador:			
Guayaquil.....	Nov. 1-30.....	1	1

SANITARY LEGISLATION.

COURT DECISIONS.

KANSAS SUPREME COURT.

Health Officer—Civil Service Appointment—Wrong Person Certified Because of Error—Appointment Held Legal.

McLAUGHLIN v. GREEN et al., 152 Pac. Rep., 661. (Nov. 6, 1915.)

Under the laws of Kansas a city health commissioner can be removed from office before the expiration of his term only upon charges preferred in writing for misconduct or failure to perform his duty.

An appointment made in good faith upon certification by the civil service commission is valid even though the wrong person was certified because of a mistake.

A city health commissioner was appointed after competitive examination and certification by the city civil service commission. The civil service commission then discovered that an error had been made in totaling the grades of the papers, and that the person certified and appointed had not secured a rating sufficiently high to entitle him to certification. The court decided that the appointment had been made in compliance with the statute and was therefore legal, notwithstanding the mistake.

MARSHALL, J.: This is an appeal from a judgment granting a peremptory writ of mandamus. On April 2, 1914, a vacancy existed in the office of the health commissioner of Kansas City, and an examination was held under chapter 88 of the laws of 1913, by the civil service commission of that city, to determine the qualifications and fitness of applicants for the position. The papers were sent to Dr. S. J. Crumbine, secretary of the State board of health, for marking and rating. He reported back that Dr. C. C. Nesselrode stood first, and Dr. C. W. McLaughlin second. April 28, 1914, before a certificate showing the result of the examination was made to the city board of commissioners, the plaintiff was appointed to the office. May 2, 1914, a proper certificate was sent to the commissioners, and the same day the appointment was regularly made. The plaintiff then entered upon the duties of the office, and performed those duties until May 6, 1915. On July 9, 1914, the civil service commission sent a communication to the board of commissioners stating that a mistake had been made in totaling the grades on the examination of the applicants for the position, and on July 20, 1914, sent a corrected certificate, showing that Dr. Tenney and Dr. Nesselrode were the two highest on the list and should have been certified to the commissioners, to the exclusion of Dr. McLaughlin. After laying the matter over from time to time, the commissioners, on August 28, refused to allow the plaintiff any further salary. May 6, 1915, after the decision in the case of *Haney v. Cofran* (94 Kan. 332, 146 Pac. 1027), the board of commissioners terminated the controversy by an order ousting the plaintiff. On May 26 an alternative writ of mandamus was issued out of the district court of Wyandotte County to compel the board of commissioners to revoke the order removing the plaintiff from the office, and to recognize him as health commissioner of the city.

The defendants present two propositions: First, that the position of health commissioner is an office and the incumbent thereof an officer within the meaning of sec-

tion 2, article 15, of the State constitution; that having been appointed under section 13, chapter 88, of the laws of 1913, and no tenure being fixed, he held at the will of the appointing power; second, that, never having been entitled to certification, the plaintiff was ineligible at the time of his appointment, the order of appointment was a nullity, and the board of commissioners could declare the office vacant.

* * * * *

After the act of 1915 took effect, the plaintiff could be removed only upon charges preferred in writing for misconduct or failure to perform his duty. He was not removed in that manner. The defendants refused to allow the plaintiff the salary for the services rendered by him after August 28, 1914. This had no effect on his right to that salary, and did not determine whether or not he had been legally appointed, and was not a removal of the plaintiff from the office then held by him.

Section 13, chapter 88, of the laws of 1913 places all officers and employees of cities under civil service rules and regulations, except certain ones therein named. The position of health commissioner, created by a city ordinance, is not one of those excepted in the statute, and is therefore subject to the civil service law. Section 5, chapter 88, of the laws of 1913 reads as follows:

The civil service commission shall, whenever it is necessary so to do, under such rules and regulations as it may prescribe, hold examinations for the purpose of determining the qualifications and fitness of applicants for all positions with the city subject to examination as hereinafter defined, which examination shall be practical and shall fairly test the fitness of the persons examined to discharge the position to which they seek to be appointed.

Section 7 reads:

The civil service commission shall certify to the board of commissioners the names and addresses of double the number of applicants for each vacancy, standing highest upon the eligible list of the class or grade to which said position belongs, and the board of commissioners shall make appointments from such list so certified and not otherwise; provided, however, that whenever the eligible list of the civil service commission contains less than double the number of applicants to fill the vacancy or vacancies existing, the board of commissioners shall appoint the person or persons then available on said eligible list.

An examination was held under the law. A certificate was given to the board of commissioners, and those commissioners appointed the plaintiff under that certificate. There was nothing to indicate that the appointment was invalid for any reason. There was nothing left to be done to make a legal appointment. A mistake was made by the civil service commission, by which the plaintiff's name was improperly placed on the certificate. The board of commissioners was bound by that certificate. A court, unless it be in proceedings in quo warranto, can not inquire into the validity of that appointment, nor correct the mistakes made by the civil service commission while acting in good faith. In *People ex rel. Mullen v. Sheffield* (24 App. Div. 214, 217, 48 N. Y. Supp. 796, 798), the court used this language:

When such a report is made by the proper board to the appointing officer, and such appointing officer acts upon such report, the appointment then becomes a valid appointment, and the person appointed becomes vested with the office to which he has been appointed. It is quite apparent that it would destroy the whole system of competitive examinations if the appointing officer would have a right to go beyond the report of the board and to refuse to accept it, on the ground that the eligible list, as presented by those upon whom the responsibility rests of determining who should be upon such eligible list, had not complied with the provisions of the statute in making up such list.

In *People v. Lindblom* (182 Ill. 241, 55 N. E. 358), the Supreme Court of that State said:

A certification of a person by the civil service commission can not be set aside and another person placed in his stead by the common-law writ of certiorari. Syl. par. 1.

See also *Matter of Allaire v. Knox* (62 App. Div. 29, 70 N. Y. Supp. 845), affirmed in 168 N. Y. 642, 61 N. E. 1127; *People ex rel. Braisted v. McCooey* (100 App. Div. 240,

91 N. Y. Supp. 436). In *People ex rel. Schau v. McWilliams* (185 N. Y. 92, 101, 77 N. E. 785, 787), the court said:

If the action of the [civil service] commission is not palpably illegal, the court should not intervene.

See also *Darling v. Maguire* (70 Misc. Rep. 597, 129 N. Y. Supp. 385, 386).

We must conclude that the appointment of the plaintiff was in compliance with the statutes, and that it is therefore legal, notwithstanding the mistake made by the civil service commission in giving the plaintiff his markings on the examination. It necessarily follows that the plaintiff is legally health commissioner of Kansas City, and the judgment of the district court is therefore affirmed. All the justices concurring.

NEW YORK SUPREME COURT—APPELLATE DIVISION—THIRD DEPARTMENT.

Ivy Poisoning—Compensation Awarded to Workman's Widow for Death Resulting Indirectly from Poison Ivy.

PLASS v. CENTRAL NEW ENGLAND RY. CO., 155 N. Y. Supp., 854. (Nov. 10, 1915.)

Death resulting from "blood poisoning" and "congestion of the lungs" following contact with poison ivy is accidental within the meaning of the New York workmen's compensation law.

A workman, while mowing grass, came in contact with poison ivy. He became ill, "blood poisoning" developed, he contracted "congestion of the lungs," and death followed. The New York workmen's compensation commission awarded compensation to his widow, and the court affirmed the award.

JOHN M. KELLOGG, J.: Plass was a section laborer, and, as such, in the course of his employment, was mowing the right of way of the appellant's railway. This was done every year, and the men were engaged several days in performing that duty. The object in mowing the grass was for the safety of the bridges, the adjoining properties, to keep fires from spreading, and to prevent the grass coming up on the tracks, thus causing the engines to slip. In the grass was growing poison ivy and other weeds, and while mowing Plass came in contact with the ivy and was poisoned, became sick and confined to his bed, resulting in blood poisoning, where he contracted congestion of the lungs, from which he died August 29, 1914. The remote cause of his death was the ivy and septic poisoning, and the immediate cause of his death was acute congestion of the lungs, to which his poisoned condition predisposed him. Such are the findings of the commission.

It has been held that contact with poison ivy which results in death is an accidental death within a policy covering death by external, violent, and accidental means. *Railway Ass'n v. Dent*, 213 Fed. 981, 130, C. C. A. 387, L. R. A. 1915A, 314. The injury can not be called an occupational disease. Plass actually, inadvertently, came in physical contact with poison ivy. The poison to his system caused thereby resulted in his sickness, and reduced his power of resistance, and made him susceptible to bronchitis. The attending physician treated him for ivy poisoning, and then found he had developed more or less infection, the blebs breaking open, and in that way he became infected, and while in bed contracted bronchitis, which afterward developed œdema of the lungs, and he died quite suddenly.

The commission has found that the ivy and septic poisoning was the remote cause of his death, and that his poisoned condition predisposed him to the acute congestion of the lungs of which he died. We are not at liberty to review the findings of the commission upon a question of fact. There is certainly some evidence to warrant the finding.

The award is therefore confirmed. All concur.

VIRGINIA SUPREME COURT OF APPEALS.

Sewage—Pollution of Streams—Injunction Allowed—Suit Begun in Time.

McKINNEY v. TRUSTEES OF EMORY AND HENRY COLLEGE, 86 S. E. Rep., 115.
(Sept. 9, 1915.)

Any pollution of a stream which is sufficient to foul the water or to impair its value for the ordinary purposes of life, or anything which renders the water less wholesome than when in its ordinary state, or which renders it offensive to taste or smell, or which is naturally calculated to excite disgust in those using the water will constitute a nuisance which a court of equity will enjoin or for which a lower riparian owner injured thereby is entitled to redress.

The mere discharge of sewage into a stream will not give a right of action. It is only when the quantity becomes great enough to injure persons that a liability is created.

A college constructed a sewer system which discharged into a small stream and polluted the water. Suit was brought by an owner of land on the stream. The court decided that the complainant was entitled to an injunction and to damages for the injury inflicted.

The statute of limitations required that such actions be brought within five years after the right of action accrued. This suit was begun within five years after sewage was discharged into the stream in sufficient quantity to work injury, but more than five years after the time when the first sewer was constructed. The court held that the action was begun in time.

WHITTLE, J. The material allegations of the bill in this case are as follows: That the plaintiff, Mary B. McKinney, is the owner of 300 acres of land situated in Washington County, Va., upon which she and her family reside; that they carry on general farming operations, keeping live stock of various kinds, including milch cows, which renders a supply of pure water essential; that the water supply for the use of the stock and farm is furnished by a small stream, known as Emory Creek, which prior to the grievances complained of was pure and uncontaminated; that the defendants, as trustees of Emory and Henry College (Inc.), own 250 acres of land lying just west of and above the property of the plaintiff, upon which they have erected an educational institution, with all necessary buildings and equipments, including dormitories, lecture rooms, laundries, chemical laboratories, residences, gymnasiums, etc., for the accommodation of the student body and members of the faculty of the college and others; that there are from 200 to 250 students, who, together with the faculty, use said buildings continuously; that within five years from the institution of this suit the defendants installed a general sewerage system for the use of the college, furnishing the buildings with washtubs, bathtubs, urinals, and closets connected with pipes by means of which the sewage is discharged into Emory Creek and defiles the naturally pure water of the stream; that this pollution extends to the premises of the plaintiff, and renders the water unfit for the use of live stock and other domestic purposes; that when the creek is flush the contaminated water backs up the spring branches into the springs, from which cause a valuable spring and spring house that had been constantly in use by the family for years had to be abandoned; that these conditions constitute a nuisance, which is a menace to the health and comfort of the family, and seriously affects the operations and market value of the farm; that the defendant is not only befouling the creek with sewage from its own premises, but in addition thereto, for compensation, has granted the privilege to citizens of the adjoining town of Emory and to the Norfolk & Western Railway Co. to connect their sewer pipes with its system, all of which doings by the defendants were without the knowledge or consent of the plaintiff.

The bill prays that the defendants may be perpetually enjoined from the pollution of the creek, and that the damages already sustained by the plaintiff may be inquired into, and the amount ascertained by a commissioner in chancery.

The allegations of the bill were substantially proved, and the defendants, without seriously controverting the facts, rely on the statute of limitations as a bar to the suit. From a decree dissolving the temporary injunction theretofore granted, and dismissing the bill, this appeal was allowed.

It appears that with the exception of a sewerage line to the creek from the residence of one of the professors (whose family consisted of five members) no other sewage had been cast into the stream at any time more than five years prior to the bringing of the suit, and the discharge from that source was negligible, so far as polluting the waters of the creek is concerned, and inflicted no injury upon the plaintiff. It also appears that what is known as the "fitting school," a building located half a mile east of the college and an adjunct thereto, was equipped with bathrooms and water-closets in the winter of 1907, but these conveniences were not used by the students until March, 1908, within less than five years from the institution of the suit. It moreover appears that plaintiff had no knowledge of the installation of these sewers until within the statutory period.

Upon the foregoing summary of the pleading and evidence, the right of the plaintiff to injunctive relief and the liability of the defendants to respond in damages for the injury inflicted is clear, and the narrow question for our determination is whether or not these rights are barred by the statute of limitations.

Trevett v. Prison Association of Virginia, (98 Va., 332; 36 S. E., 373; 50 L. R. A., 564; 81 Am. St. Rep., 727), in which the opinion of the court was delivered by Keith, P., is a leading and convincing authority for the principal propositions, and in its essential facts is undistinguishable from the case in judgment. It was there held:

(1) That "the erection of privies for the accommodation of a large number of people, and the discharge through sewers, of refuse water, urine, and excrement into a stream, is such a pollution of the stream as entitles a lower riparian owner to recover damages for the injury thereby inflicted. Privies are *prima facie* nuisances, and, even when necessary or indispensable, the persons erecting or using them are liable for all injurious consequences flowing from building or allowing them to remain in such condition as to annoy others in the enjoyment of their property. (2) The natural pollution of water in its flow through populous regions of country can not, ordinarily, be restrained. But any use of a stream that materially fouls and adulterates the water, or the deposit or discharge therein of any filth or noxious substance that so far affects the water as to impair its value for the ordinary purposes of life, or anything which renders the water less wholesome than when in its ordinary state, or which renders it offensive to taste or smell, or which is naturally calculated to excite disgust in those using the water for the ordinary purposes of life, will constitute a nuisance which a court of equity will enjoin, or for which a lower riparian owner injured thereby is entitled to redress."

In 1 *Farnham on Waters and Water Rights*, page 641, note 2, the distinguished author cites this case as authority for the proposition that:

Damages for the pollution of a stream by the discharge therein, through sewers constructed for the purpose, of the refuse water and excrement from washtubs, bathtubs, and closets of the buildings of a prison association, in which are quartered several hundred persons, may be recovered by a riparian owner who conducts a profitable dairy and butter business, necessitating a plentiful supply of pure water for his cows and who also uses the water for domestic purposes.

If other authority were needed for the right to redress by one injuriously affected by a private nuisance, it will be found in the recent case of *Face & Son v. Cherry* (117 Va. —, 84, S. E. 10), where other decisions of this court are cited.

2. Upon the second proposition, which involves the defense of the statute of limitations, we entertain no doubt that under the facts of this case plaintiff's cause of action accrued when the discharge of sewage into Emory Creek was in sufficient quantities to pollute the stream and constitute a nuisance. The opposing contention, that the right attached in 1907, when closets were first installed in the residence of one of the professors, though no injury was thereby inflicted upon the plaintiff, has neither the sanction of reason nor authority.

The constitution of Virginia of 1902, section 58 (Code 1901, p. ccxxii), ordains that the general assembly "shall not enact any law whereby private property shall be taken or damaged for public uses without just compensation." Yet until there is either a taking or damage to the property the owner has no occasion to invoke the protection of the constitution.

In 1 *Farnham on Waters and Water Rights*, section 139, discussing the subject of procedure to abate nuisance, it is said:

Before any right of action accrues to a riparian owner because of the discharge of sewage into a stream, there must be a taking of his property, or the quantity of sewage cast into the stream must be so great as

to constitute a nuisance. The mere fact that the municipal corporation has turned its sewage into the water will not give a right of action. This it has a right to do, and it is only when the quantity becomes great enough to work injury to others that its liability arises (citing *Sayre v. Newark*, 58 N. J. Eq. 136, 42 Atl. 1068; *Lillywhite v. Trimmer*, 36 L. J. Ch. (N. S.) 530, 16 L. T. (N. S.) 318, 15 Week. Rep. 763; *Jacksonville v. Doan*, 145 Ill. 23, 33 N. E. 878).

The same is true of private corporations and individuals. Again, in the same section it is said:

And the injury must be present and not prospective. The consequence of this is that the right of action accrues at the time the injury is done, regardless of the time when the works were completed. But after the cause of action has arisen the action must be brought before the right to maintain it is barred by the statute of limitations.

The text is sustained by decisions of courts of high authority cited in notes. That injunction is a proper remedy to abate the nuisance in such case, see *Id.*, section 139b.

This case is readily distinguishable from the class of cases of which *Virginia Hot Springs Co. v. McCray* (106 Va., 461, 56 S. E. 216, 10 L. R. A. (N. S.) 465, 10 Ann. Cas. 179) is a conspicuous type. In that case the court had to deal with a situation where the pollution of the stream was occasioned by the installation of a completed sewer system, the use of which created a permanent nuisance, which destroyed the waters of the stream for all useful purposes. The injury to the lower riparian owner was direct and immediate and his right of action to recover entire damages necessarily accrued at once.

For these reasons the decree appealed from must be reversed and the case remanded for further proceedings not inconsistent with this opinion.

Kelly, J., absent.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

WISCONSIN.

Communicable Diseases—Notification of Cases. (Chap. 67, Act May 7, 1915.)

SECTION. 1. Section 1416-1 of the statutes is amended to read:

SEC. 1416-1. It shall be the duty of every physician to report to the department of health in every town, incorporated village, or city, in writing, within 24 hours, the full name, age, and address of every person treated, visited, or known by such physician to be suffering from any one of the infectious or contagious diseases following, to wit: Measles, smallpox, diphtheria (membranous exudate), scarlet fever (scarlatina), typhoid fever, tuberculosis (of any organ), rubella (rötheln), chicken-pox, typhus fever, plague, erysipelas, Asiatic cholera, whooping cough, cerebrospinal meningitis, yellow fever, acute anterior poliomyelitis, trachoma, and ophthalmia neonatorum; and it shall be the duty of every person, owner, agent, manager, principal, or superintendent of any public or private institution or dispensary, hotel, boarding or lodging house, in any such town, incorporated village, or city, to make a report, in like manner and form, of any inmate, occupant, or boarder suffering from any of the said infectious or contagious diseases. It shall also be the duty of every physician to report by number all cases of syphilis and gonorrhea occurring in his practice to the State board of health at such time and in such manner as the State board of health may direct.

Communicable Diseases—Notification Blanks to be Furnished by State Board of Health—Reports by Health Officers to State Board of Health. (Chap. 182, Act May 28, 1915.)

SECTION 1. Section 1412m-2 of the statutes is amended to read:

SEC. 1412m-2. 1. All record books, quarantine cards, and other material needed to satisfactorily carry on the work of the board, except such as is furnished by the State board of health, shall be supplied by the local health officer and paid for at public expense, upon the order of the local board of health.

2. The blanks used by physicians and other persons reporting dangerous communicable diseases to the local health officers shall be furnished by the State board of health, and distributed by the local health officer in each district. These blanks shall be of the general form adopted and approved by the State and Territorial health authorities in conference with the United States Public Health Service.

3. Local health officers, or boards of health, shall, within seven days after the receipt by them of reports of cases of notifiable communicable diseases, and as much oftener as the State board of health may require, forward by mail to the State board of health the original written reports made by physicians and other persons, after having transcribed the information given in the respective reports in a book, or other form of record, for the permanent files of the local health office. On each report thus forwarded the local health officer shall state whether the case to which the report pertains was visited, or otherwise investigated, by a representative of the local health office, and whether measures were taken to prevent the spread of the disease or the occurrence of additional cases.

4. The local health officer, or board of health, shall, when an epidemic of any dangerous communicable disease occurs in the district, within 30 days after the epidemic has subsided, make a report to the State board of health of the number of cases occurring in the epidemic, the number of cases terminating fatally, the origin of the epidemic, and the means by which the disease was spread.

Wassermann Test and Chemical Examination of the Cerebrospinal Fluid—Free.
(Chap. 307, Act June 23, 1915.)

SECTION 1. There is added to the statutes a new section to read:

SEC. 561*jn*. The board of control is hereby authorized to make necessary arrangements with the laboratory of the psychiatric institute of Mendota for the giving of the Wassermann test to any person confined in any State or county institution, and of making such test for any practicing physician of this State who makes application therefor in behalf of any resident of this State, free of charge. Arrangements shall also be made with said institute for the making of chemical examinations of the cerebrospinal fluid for any practicing physician of this State free of charge.

Rabies—Prevention of—Killing of Dogs. (Chap. 512, Act Aug. 5, 1915.)

Section 1619 of the statutes was amended to read:

SEC. 1619. 1. Any person may kill any dog that he knows is affected with a disease known as hydrophobia or that may suddenly assault him while he is peacefully walking or riding and while being out of the inclosure of its owner or keeper, * * *.

State Tuberculosis Sanatorium—Medical Examination of Applicants for Admission—Indigent Patients. (Chap. 429, Act July 20, 1915.)

SECTION 1. Section 1421-6, subsections 1 and 2 of section 1421-8, and sections 1421-12 and 1421-13 of the statutes are amended to read:

SEC. 1421-6. The State board of control may appoint as medical examiner or examiners of said institution any reputable physician or physicians, who shall be a citizen or citizens of Wisconsin, and whose duty it shall be to examine all persons applying for admission to the sanatorium. The fee of the examining physician shall not exceed \$4 in any case, said amount to be paid by the applicant. If the applicant is unable to pay such fee, then such fee shall be charged against the county in which the patient has a legal settlement.

SEC. 1421-8. 1. All persons admitted as patients to the sanatorium shall pay to said institution the cost of their maintenance. The charges for any patient or patients may, however, be paid by any person or persons or society. The determination of such sum shall be made by the superintendent and the State board of control. Any person who is unable to pay the charges for his or her support may be admitted to said sanatorium after it has been determined by the examining physician and superintendent of the sanatorium that such person is suffering from pulmonary tuberculosis in the incipient or slightly advanced stage: *Provided, however,* That before such person shall be admitted to the sanatorium he or she shall file a statement with the judge of the probate court of the county within which he or she has a legal settlement, setting forth the fact that he or she is unable to pay the regular charges.

2. Said judge upon presentation of the report of the examining physician that said person is afflicted with pulmonary tuberculosis in the incipient or slightly advanced stage and a statement from the superintendent of the sanatorium that in his opinion the applicant is eligible and that he or she can be received, shall make an investigation, and if he finds that said applicant or his legal representatives are actually unable to pay such charges, shall approve in writing the application of such person: *Provided,* That such judge may in his discretion require the approval of chairman of

the county board thereto, and in all cases the said judge shall notify the chairman of the county board of his action in such matters. Said judge shall immediately forward to the superintendent of the sanatorium a certificate in writing that said patient is unable to pay said charges, and that he or she has a legal settlement in the county in which such application has been so approved.

SEC. 1421-12. Any indigent person suffering from tuberculosis in the secondary or advanced stages who shall have been a resident of the State for at least one year shall be received into the institution, within the limits of its capacity, as determined by the State board of control. Before such person shall be admitted he shall file a statement with the county judge of the county in which he has a legal settlement, setting forth the fact that he is unable to pay for his care and treatment. The county judge of the county in which such person has a legal settlement shall make a thorough investigation of the case, and if he finds that the applicant or his legal representatives are unable to pay for his care he shall approve in writing the application of such person. The judge shall immediately forward to the superintendent of the institution a statement in writing that such person is indigent and is suffering from tuberculosis in the secondary or advanced stages. Upon receipt of such certificate it shall be the duty of the superintendent of the institution to receive and care for such indigent person until the superintendent shall recommend his discharge or removal.

SEC. 1421-13. In all cases where indigent persons desire to be admitted into the institution, the county judge of the county in which such person has a legal settlement shall, before issuing an order for his admission, cause such person to be examined by a regularly licensed physician, who shall file a report with such judge, and if it is found by such judge from the report of such physician that such indigent person is suffering from tuberculosis in the secondary or advanced stages, the order for the admission of such person shall be issued.

**County Tuberculosis Sanatoriums—Establishment of—Admission of Patients—
State Aid. (Chap. 544, Act Aug. 16, 1915.)**

SECTION 1. Subsection 1 of section 1421-9, sections 1421-12 and 1421-13, and subsection 1 of section 1421-14 and section 172-120 of the statutes are amended to read:

SEC. 1421-9. 1. The county board of supervisors of any county may, with the consent of the State board of control, purchase a site and establish or provide a building or shack for the treatment of persons suffering from tuberculosis. No building or shack shall be so constructed until after the site has been approved by the State board of control.

SEC. 1421-12. Any indigent person suffering from tuberculosis, who shall have been a resident of the State for at least one year, shall be received into the institution, within the limits of its capacity, as determined by the State board of control. Before such person shall be admitted he shall file a statement with the county judge of the county in which he resides setting forth the fact that he is unable to pay for his care and treatment. The county judge of the county in which such person resides shall make a thorough investigation of the case, and if he finds that the applicant or his legal representatives are unable to pay for his care he shall approve in writing the application of such person. The judge shall immediately forward to the superintendent of the institution a statement in writing that such person is indigent and is suffering from tuberculosis. Upon receipt of such certificate it shall be the duty of the superintendent of the institution to receive and care for such indigent person until the superintendent shall recommend his discharge or removal.

SEC. 1421-13. In all cases where indigent persons desire to be admitted into the institution the county judge of the county in which such person resides shall, before

issuing an order for his admission, cause such person to be examined by a regularly licensed physician, who shall file a report with such judge, and if it is found by such judge from the report of such physician that such indigent person is suffering from tuberculosis the order for the admission of such person shall be issued.

SEC. 1421-14. 1. Any person not indigent suffering from tuberculosis, who shall have been a resident of the State not less than one year, may be received into any institution provided for by sections 1421-9 to 1421-16, inclusive, and cared for at a rate which shall not exceed the actual cost of maintenance therein: *Provided*, That before such admission he shall furnish to the superintendent of the institution a certificate of a regularly licensed physician that he is suffering from tuberculosis.

SEC. 172-120. There is appropriated as State aid for tuberculosis in county institutions, to carry into effect the provisions of section 1421-14, not to exceed \$100,000 for the fiscal year ending June 30, 1916, and annually for each fiscal year thereafter not to exceed \$125,000, and such aid shall be apportioned among the various county institutions in proportion to the number of patients in each institution during the year ending on the 30th day of June: *Provided*, That there shall not be allowed more than \$5 a week per patient for the number of weeks any such patient shall be a resident of any such institution.

District Tuberculosis Hospitals—Counties Authorized to Join in Establishing and Maintaining. (Chap. 227, Act June 10, 1915.)

SECTION 1. There are added to the statutes eight new sections to read:

SEC. 1421-17. 1. The county boards of any county, not to exceed three, may form themselves into a joint board for the purpose of establishing and maintaining a district hospital for the care and treatment of persons suffering from tuberculosis in the advanced and slightly advanced stages. The county board of each county desiring to unite for such purpose may appoint three persons, and all persons so appointed shall constitute a joint committee to obtain a site and erect the necessary buildings thereon, and the powers and duties of such joint committee shall terminate when the buildings are erected and equipped and ready for occupancy.

2. In the selection and acquirement of such site the joint board shall have the same powers as the county board of supervisors. They may receive and hold in trust for the use and benefit of such institutions any grant or devise of land and any donation or bequest of money or other personal property that may be made for the establishment and support thereof.

SEC. 1421-18. Before such joint committee, proposing to erect such an institution, shall proceed to the construction of such an institution, it shall cause complete plans, drawings, and specifications for the buildings of such institution to be prepared and submitted to the State Board of Control of Wisconsin for its approval. No buildings shall be constructed until after the site has been approved by the State Board of Control of Wisconsin. After the plans, drawings, and specifications have been approved by the State Board of Control of Wisconsin, the joint committee may proceed with the construction of the buildings for such institution.

SEC. 1421-19. At the time or before the completion of such district hospital the joint boards shall elect a board of trustees to consist of one member from each county represented. The terms of such trustees shall be as follows: One for one year, one for two years, and where three counties are represented, one for three years, and annually thereafter the board of supervisors of any county in which the term of a trustee or trustees expires shall appoint such trustee or trustees for a term of as many years as there are counties represented and until his or their successors are elected and qualified. Any vacancy shall be filled by an election in like manner for the unexpired term of the original appointment. The board of supervisors of any county may remove any trustee for good and sufficient cause.

SEC. 1421-20. 1. Such trustees shall serve without compensation except that they shall receive their actual expenses incurred in the performance of their duties. The trustees shall appoint as superintendent of such institution a graduate trained nurse and also a visiting physician and fix their compensation. The trustees shall designate the number of employees of such institution and fix their compensation. The employees shall be selected by the superintendent, subject to the confirmation of the board of trustees. They shall appoint one of their members as president and the superintendent of the hospital may be the secretary of the board. The county treasurer of the county in which such institution is located shall be the treasurer of such institution and shall receive all moneys paid for the maintenance of the inmates of such institution and shall disburse all moneys to be paid on account of such institution, such disbursement to be made upon the order of the trustees. The warrants for such disbursements to be drawn on the treasurer by the president and secretary.

2. Such institution shall be conducted under the rules and regulations made by the superintendent and approved by the board of trustees.

SEC. 1421-21. 1. The first cost of the tuberculosis hospital, including the cost of equipment and the cost of improvements and additions thereto, shall be paid by the counties comprising the district in proportion to the taxable property of each county as shown by their respective tax rolls.

2. The superintendent shall prepare a quarterly statement, which shall be approved by the board of trustees, showing the daily cost for the current expense of maintaining such hospital, including the cost of the ordinary repairs, and each county in the district shall pay its share of such cost as determined by the number of days the total number of patients from such county have spent in the hospital during the quarter, but the sum paid by patients from such county for their treatment therein shall be deducted from this amount. The county boards of supervisors of counties jointly maintaining a district hospital for tuberculosis shall make annual assessments of taxes sufficient to support and defray all necessary expenses of such hospital.

SEC. 1421-22. 1. All taxes levied by the county board of supervisors of any county under the provisions of section 1421-21 shall, when collected, be paid over to the treasurer of the district tuberculosis hospital by the treasurers of the joint counties and the treasurer of said board of trustees shall receipt therefor and shall create a fund to be known as the "tuberculosis hospital fund," and thereupon said funds may be disbursed by said board of trustees for the use of said district tuberculosis hospital and accounted for as provided in the foregoing sections.

2. The treasurer of the board of trustees shall give a bond for the faithful performance of his duties in such sum as may be fixed by the trustees, the expense of such bond to be paid out of the fund for the maintenance of the hospital. The bond of such treasurer shall be filed with the county clerk of the county in which such institution is located.

SEC. 1421-23. Said board of trustees shall meet at the tuberculosis hospital monthly and at such other times as they may deem necessary. On the 1st day of October of each year they shall file with the joint committee a report of their proceedings with reference to such district hospital, and a statement of all receipts and expenditures during the year, and at such time shall certify to the county boards of the different counties the amount necessary to maintain and improve the hospital for the ensuing year.

SEC. 1421-24. The provisions of sections 1421-12 to 1421-14, inclusive, of the statutes, in so far as they relate to applications for admission, medical examinations, pay patients, and State aid, shall be applicable in all cases where joint tuberculosis hospitals are erected and maintained.

State Board of Health—Continuing Annual Appropriation. (Chap. 580, Act Aug. 18, 1915.)

SECTION 1. Subsection 5 of section 172-27 of the statutes is amended and subsections 7 and 8 of section 172-27 are created, to read:

SEC. 172-27. 5. There is appropriated on July 1, 1915, \$35,000 and annually beginning July 1, 1916, \$35,000, payable from any moneys in the general fund not otherwise appropriated, to the State board of health to carry into effect the powers, duties, and functions provided by law for said board.

7. There is appropriated on July 1, 1915, \$7,500, payable from any moneys in the general fund not otherwise appropriated, to be used upon special authorization by the governor and the attorney general as a contingent emergency fund for checking or preventing threatened epidemics of transmissible diseases.

8. There is annually appropriated, beginning July 1, 1915, not to exceed \$2,500 for equipping and operating a State laboratory of hygiene to be situated in a city accessible to physicians and health officers in the northern part of the State of Wisconsin for the conducting of bacteriological and chemical examinations of material from the various contagious and infectious diseases or material from suspected contagious and infectious diseases of men and animals when public health is concerned. *Provided*, That suitable quarters for such laboratory shall be offered to the State free of charge for rent, light, heat, and janitor service.

City Boards of Health—Creation, Organization, and Powers. (Chap. 101, Act May 18, 1915.)

SECTION 1. There is added to the statutes a new section to read:

SEC. 1411m. 1. The council of any city, excepting cities of the first class, existing under special charter or organized under the provisions of sections 925m-301 to 925m-319, inclusive, of the statutes, may by ordinance create a board of health of not less than three nor more members than the number of aldermen elected in such city, provide for the manner of their election or appointment, and fix the terms of office of the members of such board. Such ordinance may confer on such board power to appoint a health officer for such city and to fix his term of office and compensation, subject to the approval of such council.

2. Such board of health shall organize by the election of a president and secretary. The secretary shall keep full minutes of the proceedings of such board. No member of such board shall receive compensation unless such compensation shall have been provided by the council.

3. The council of any such city may confer appropriate powers on such board, and may permit such board, by ordinance, to delegate any of its powers to the health officer. Such board of health and any health officer appointed by it shall have all the powers given to boards of health and health officers and commissioners by any general law of this State, and any power conferred on health officers under section 925-111a may be exercised by such board or such officer acting under its authority.

4. All rules and regulations prepared by such board shall be reported to the council of such city, and if the same shall be approved by a majority of the members of such council, such rules and regulations shall have the force and effect of ordinances, and the violation thereof may be prosecuted and punished as in the case of ordinances.

Milk and Cream—Permits for Buying, Receiving, and Shipping—Sanitary Condition of Utensils, Buildings, and Premises. (Chap. 617, Act Aug. 23, 1915.)

SECTION 1. There is added to the statutes a new section to read:

SEC. 1636-70. 1. No person, either for himself or as agent or employee of another, shall establish or maintain a receiving station or depot in any town, village, or city

in this State and engage therein in buying or receiving and shipping milk or cream unless he shall have first received a permit to engage in such business from the board of health of such town, village, or city; but this section shall not apply to the gathering or collecting of milk or cream by wagon or other similar vehicle or by automobile or other similar motor vehicle or to the distribution of milk or cream to the ultimate consumer.

2. Permits to engage in buying or receiving and shipping milk or cream as provided in subsection 1 of this section shall be issued only to persons who shall present satisfactory evidence to the board of health that they are qualified and competent to conduct such business in a clean and sanitary manner and that the utensils, cans, vessels, rooms, or buildings or other equipment, facilities, or premises used in conducting such business are and will be maintained in a clean and sanitary condition or in any condition that will not tend to produce or promote unhealthfulness or disease.

3. Each applicant for such permit shall pay \$5 to such board of health before such permit shall be issued to him. All such permits shall expire on the 31st day of December of the year in which issued. All money received under the provisions of this section shall be paid into the treasury of the town, village, or city in which the permit for conducting such business is issued.

4. The board of health of any town, village, or city may at any time revoke any permit issued by it whenever the grantee shall conduct such business in an unclean and insanitary manner, shall keep the utensils, cans, vessels, rooms, or buildings, or other equipment, facilities, or premises used in conducting such business in an unclean or insanitary condition or in any condition tending to produce or promote unhealthfulness or disease, or shall be convicted of violating any of the laws of this State or the rules or regulations of the State board of health of [sic] such town, village, or city relating to sanitation.

5. Any person violating any of the provisions of subsection 1 of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than \$25 nor more than \$100, or by imprisonment in the county jail not less than 30 days nor more than 6 months, or by both such fine and imprisonment.

Births, Deaths, and Marriages—Fees for Reporting. (Chap. 38, Act Apr. 20, 1915.)

SECTION 1. Section 1022-53 of the statutes is repealed.

SEC. 2. Subsection 1 of section 1022-58 of the statutes is amended to read:

SEC. 1022-58. 1. Each physician, midwife, minister, or priest, court commissioner, judge of a court of record, justice of the peace, or other person acting as informant and filing with the local registrar, certificates of births, deaths, and marriages completely and legibly made out in ink, shall be entitled to receive the sum of 25 cents for each birth, death, and marriage so recorded, to be paid by the treasurer of the county upon certification by the State registrar.

Births—Registration of—Physicians' or Midwives' Bills Unlawful Unless Birth Is Reported. (Chap. 230, Act June 11, 1915.)

SECTION 1. Section 1022-28 of the statutes is amended to read:

SEC. 1022-28. The physician or midwife in attendance when any birth occurs shall file a certificate of birth, properly and completely filled out, giving all the particulars required by sections 1022-1 to 1022-62 inclusive, with the local registrar of vital statistics of the district in which the birth occurred within five days after the date of birth. All bills or charges for professional services rendered by the physician or midwife in attendance upon a birth shall be unlawful, if the birth certificate, properly filled out, is not reported as herein provided.

Marriage—Amendment to the Law Requiring Physical Examination of Male Applicants for Marriage License.¹ (Chap. 525, Act Aug. 10, 1915.)

SECTION 1. Subsections 3, 4, and 5 of section 2339*m* of the statutes are hereby repealed.

SEC. 2. Subsections 1, 2, 6, and 7 of section 2339*m* of the statutes are amended to read:

SEC. 2339*m*. 1. All male persons making application for license to marry shall at any time within 15 days prior to such application be examined as to the existence or nonexistence in such person of any venereal disease, and it shall be unlawful for the county clerk of any county to issue a license to marry to any person who fails to present and file with such county clerk a certificate setting forth that such person is free from venereal diseases so nearly as can be determined by a thorough examination and by the application of the recognized clinical and laboratory tests of scientific search, when, in the discretion of the examining physician, such clinical and laboratory tests are necessary. When a microscopical examination for gonococci is required, such examination shall, upon the request of any physician in the State, be made by the State laboratory of hygiene free of charge.

The Wassermann test for syphilis when required shall, upon application, be made by the Psychiatric Institute at Mendota free of charge. Such certificate shall be made by a licensed physician, shall be filed with the application for license to marry, and shall read as follows, to wit:

I,, being a legally licensed physician, do certify that I have this
(Name of physician.)
day of, 19.., made a thorough examination of
(Name of person.)
and believe him to be free from all venereal diseases.

.....
(Signature of physician.)

2. Such examiners shall be physicians duly licensed to practice in this State. The fee for such examination, to be paid by the applicant for examination before the certificate shall be granted, shall not exceed \$2. The county or asylum physician of any county shall, upon request, make the necessary examination and issue such certificate, if the same can be properly issued, without charge to the applicant, if said applicant be indigent.

3. Any county clerk who shall unlawfully issue a license to marry to any person who fails to present and file the certificate provided by subsection 1 of this section, or any party or parties having knowledge of any matter relating or pertaining to the examination of any applicant for license to marry, who shall disclose the same, or any portion thereof, except as may be required by law, shall upon proof thereof be punished by a fine of not more than \$100 or by imprisonment not more than six months.

4. Any physician who shall knowingly and willfully make any false statement in the certificate provided for in subsection 1 of this section shall be punished by a fine of not more than \$100 or by imprisonment not more than six months.

Mausoleums, Vaults, and Crypts—Construction and Maintenance—Approval of Plans by State Board of Health. (Chap. 213, Act June 10, 1915.)

SECTION 1. There are added to the statutes four new sections to read:

SEC. 1455-1. No person, firm, or corporation shall build, construct, or erect any mausoleum, vault, crypt or structure intended to hold or contain dead human bodies, which shall be wholly or partially above the surface of the ground, except in compliance with the rules and regulations of the State board of health governing their location, materials, and construction. The State board of health is hereby authorized and empowered to adopt and enforce such rules and regulations governing the

¹ The original law will be found in Reprint No. 264 from the Public Health Reports, p. 504.

location, materials, and construction of mausoleums, vaults, crypts, or other similar structures: *Provided*, The proper local officials of any township, incorporated village or city shall have the authority to make and enforce such additional ordinances, by-laws, rules, or regulations as they may deem necessary not inconsistent with this act or with any rule or regulation adopted or prescribed by the State board of health.

Before commencing the building, construction, or erection of the same, full detailed plans and specifications of such structure shall be presented to the State board of health for its examination and approval. The approval of the said plans and specifications by the State board of health shall be evidenced by a certificate in writing, signed by the executive officer of the said board.

SEC. 1455-2. The State board of health shall have supervisory control over the construction of any such mausoleum, vault, or crypt, and it shall be the duty of said board to see that the approved plans and specifications are in all respects complied with. No departure or deviation from the original plans and specifications shall be permitted, except upon approval of the State board of health, evidenced in like manner and form as the approval of the original plans and specifications.

No mausoleum, vault, crypt or structure so erected as aforesaid shall be used for the purpose of interring or depositing therein any dead body until there shall have been obtained from the State board of health a final certificate signed by the executive officer of the board, stating that the plans and specifications as filed, have been complied with, and that the maintenance fund required by this act has been deposited with the proper city or county official.

SEC. 1455-3. There shall be deposited with the city treasurer or where said mausoleum, vault, or crypt is to be erected in territory not under the jurisdiction of any city, then with the county treasurer of the county in which such mausoleum, vault, crypt, or structure is to be constructed, a maintenance fund in such sum as shall be determined and fixed by the said State board of health, which said fund shall be held and invested by said city or county treasurer for the benefit of and care for such mausoleum, vault, or crypt and the income thereof paid annually or less frequently as the cemetery or other committee having in charge such mausoleum, vault, or crypt may require for the care and up-keep of said structure.

SEC. 1455-4. Any person, any member of a firm, or any officer or director of a corporation failing to comply with each and every provision of this act shall be personally liable therefor, and shall, upon conviction thereof, be deemed guilty of a misdemeanor. Violation of any of the provisions of this act shall be punishable by a fine of not less than \$100 nor more than \$500 or by confinement in the county jail not less than 10 days nor more than 6 months or by both such fine and imprisonment. This act shall not apply to any mausoleum now in process of construction.

Embalming—Qualifications for License—Transportation of Dead Bodies—State Board of Health Authorized to Make Rules. (Chap. 446, Act July 23, 1915.)

SECTION 1. Section 4608c of the statutes is repealed.

SEC. 2. Sections 1409-3 and 4608a of the statutes are amended to read:

SEC. 1409-3. No person shall be granted a license under sections 1409-1 to 1409-9, inclusive, who has not had at least two years of practical instruction in embalming and disinfecting under a licensed embalmer. Each application for an embalmer's license shall be made in writing on blanks prescribed by the State board of health and filed with the secretary of said board, and shall be accompanied by a fee of \$5, and proof that the applicant is a person of good moral character, and of the age of 21 years or over, and has a general education equivalent to that required for graduation from the eighth grade of any public school.

SEC. 4608a. 1. The State board of health is hereby empowered to make such rules and regulations for the transportation of the dead as in its judgment may be neces-

sary to preserve the public health, and no dead body shall be accepted for transportation except when prepared in conformity to the rules and regulations adopted by said board for the transportation of the dead.

Tuberculin Test—Inspection of Live Stock for Interstate Shipment. (Chap. 625, Act Aug. 23, 1915.)

SECTION 1. There is added to the statutes a new section, to read:

SEC. 1492*em*. 1. No inspection for interstate shipment of live stock shall be made in this State by any person other than an inspector of the United States Bureau of Animal Industry or an authorized inspector of the live stock sanitary board.

2. Any person violating any provision of subsection 1 of this section shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than \$25 nor more than \$100, or by imprisonment in the county jail for not more than 30 days, or by both such fine and imprisonment.

3. Whenever inspections and tuberculin tests of cattle for interstate shipment from this State are not made or administered by an inspector of the United States Bureau of Animal Industry, the live stock sanitary board shall, upon request for such inspection or tuberculin test, cause such inspection or test to be made or administered.

4. Any person, firm, or corporation requesting inspection or tuberculin test of cattle for interstate shipment from this State shall pay therefor such fees as shall be determined by the live-stock sanitary board, which shall be as nearly equivalent to the cost of such inspection or test as can be determined from the records in the office of the said board. Such fees shall be paid to the person making the inspection or administering the tuberculin test before a certificate of inspection shall be delivered to the person, firm, or corporation. All moneys received as fees under the provisions of this section shall be paid into the State treasury, and shall be credited to the appropriation account of the State live-stock sanitary board. The board may require its inspectors to give such bond as it may determine.

5. Whenever cattle which have been tuberculin tested by an authorized inspector in this State prior to shipment from this State into another State and such cattle are tuberculin tested in such other State within three months after arrival therein, and an unreasonable number of such cattle react to such test, the State live-stock sanitary board shall investigate the facts in connection therewith. The said board may, as herein provided, compel the appearance before it of the person or the proper official of the firm or corporation making such shipment. If upon such investigation the State live-stock sanitary board shall find that the unreasonable number of reactors to the tuberculin test administered in such other State was due to the act or omission of such person, firm, or corporation, the said board shall thereafter deny to such person, firm, or corporation the privileges of inspection as herein provided.

6. Whenever the live-stock sanitary board or other similar board of any other State shall report to the live-stock sanitary board of this State that a person, firm, or corporation of such other State has bought and collected in this State a consignment of cattle which had been tuberculin tested by an authorized inspector in this State prior to shipment from this State into such other State that an unreasonable number of such cattle had reacted to such test in such other State, and that such facts were substantiated by post-mortem examination by a Federal meat inspector, the live-stock sanitary board shall thereafter deny to such person, firm, or corporation the privileges of inspection as provided in this section.

7. For the purpose of promoting live-stock sanitation and of carrying out the provisions of this section, the live-stock sanitary board shall have power to administer oaths, issue subpoenas, compel the attendance of witnesses, and the production of papers, books, accounts, documents, and testimony. In case of disobedience on the part of any person to comply with any order of the board, or any member thereof,

or any subpoena issued in behalf of such board, or on the refusal of any witness to testify to any matters regarding which he may be lawfully interrogated, it shall be the duty of the circuit court of any county, or the judge thereof, on application of a member of the board, to compel obedience by attachment proceedings for contempt as in the case of disobedience of the requirements of a subpoena issued from such court or a refusal to testify therein. A record of all hearings had under the provisions of this section shall be kept in the office of the live-stock sanitary board.

Tuberculin Test—Slaughtering of Diseased Animals—Disposition of Carcasses.
(Chap. 561, Act Aug. 17, 1915.)

SECTION 1. Subsection 9 of section 1492b of the statutes is amended to read:

SEC. 1492b. 9. If any such appraised animals be slaughtered on the premises of the owner thereof such slaughter shall be made under the supervision and direction of the State veterinarian or an assistant. If, after inspecting the carcass of the above-described animals, it is found, according to rules of inspection laid down by the live-stock sanitary board, which shall conform with those of the United States Bureau of Animal Industry, that the carcass is unfit for human food, he shall destroy such carcass, or cause the same to be buried and covered with a sufficient quantity of lime to destroy the carcass. The hide shall be disinfected and otherwise cared for according to rules laid down by the live-stock sanitary board. If the carcass is fit to be used for human food it may be disposed of in accordance with the provisions made by the said board.

Tuberculin Test—Diseased Bovine Animals—Slaughtering and Appraisement.
(Chap. 93, Act May 14, 1915.)

SECTION 1. Subsections 1 and 11 of section 1492b and subsection 1 of section 1492d of the statutes are amended to read:

SEC. 1492b. 1. Whenever the owner shall not exercise the option mentioned in the preceding section,¹ and it shall be deemed necessary by the board to slaughter diseased animals and animals reacting to the tuberculin test, either on the premises or at some designated abattoir or any other place for demonstration purposes, and the representative of the live-stock sanitary board and State veterinarian can not agree with the owner as to the value of such animal, written notice shall be given to the owner, his agent or the person in charge of such animals, and to a justice of the peace in the county in which the animals may be of the purpose to order the slaughter thereof, giving the number and description of the animals and the name of the owner.

11. The owners of condemned and slaughtered animals shall receive compensation therefor from the State until June 1, 1917, as follows:

(a) For bovine animals condemned and ordered slaughtered by the board, on account of reacting to the tuberculin test, but upon whose carcass no tubercular lesion were found, the full appraised value, which in no case shall exceed \$70.

(b) For bovine animals condemned and ordered slaughtered on account of having reacted to the tuberculin test, upon whose carcass tubercular lesions were found at the time of the slaughter thereof, but which carcass was passed for food by the inspector, three-fourths of the appraised value of such animal.

(c) For bovine animals described in subdivision (d) of this section, if the carcass of such animal is ordered tanked as unfit for food, by the inspector, one-half of the appraised value of such animal.

(d) For other animals condemned and ordered slaughtered by the board, three-fourths of the appraised value of such animal.

SECTION 1492d. 1. All claims against the State arising from the slaughter of animals shall be made by filing with the secretary of state a copy of the live-stock sanitary board's notice to the owner and to the justice of the peace, and the return of the

¹ The section referred to grants the owner the option of "retaining the animals in quarantine, under such restrictions as the board may prescribe or of shipping them under the auspices and direction of the board to some abattoir designated by it for immediate slaughter under United States government inspection."

appraisers to the justice, which notice and return shall be certified by such justice; together with a statement of the person under whose inspection such animals were slaughtered, giving the name and place of residence of the owner, the date on which such animals were slaughtered, the tag number of each animal, and showing whether tubercular lesions were found in the carcass of any such animal and stating whether such carcass was passed for food or tanked; the secretary of state and State veterinarian shall examine such statements, and if satisfied that the amounts at which such animals were appraised are just and that the owner of such animals or animals slaughtered is entitled to indemnity, the secretary of state shall issue his warrant in favor of the owner of such animal for the full sum named in such return for all animals ordered slaughtered by the proper authorities on account of reacting to the tuberculin test upon whose carcass the inspector failed to discover tubercular lesions at the slaughter thereof and for three-fourths of the sum named in such return for all other animals so slaughtered. In case the representative of the live-stock sanitary board and the State veterinarian can agree with the owner of the animal so slaughtered upon the value of such animal, claims against the State arising from the slaughter of animals shall be made in the same manner as hereinbefore provided in this subsection except that the returns as to the appraisal of animals so slaughtered shall be made by filing with the secretary of state a copy of the live-stock sanitary board's notice to the owner and a copy of their appraisal, which shall be certified to before a notary public, justice of the peace, or other person authorized to administer oaths.

Lying-In Hospitals and Maternity Homes—License—Penalty for Violation of Law.
(Chap. 243, Act June 11, 1915.)

SECTION 1. Section 1542f of the statutes is amended to read:

SEC. 1542f. Any person found guilty of violating any of the provisions of section 1542a to 1542g,¹ inclusive, shall be punished by a fine of not less than \$10 nor more than \$500, or by imprisonment in the county jail not more than one year.

SEC. 2. There is added to the statutes a new section to read:

SEC. 1542g. Every person, persons, firm, or corporation who now conducts a lying-in hospital, hospital ward, maternity home, or other place for the reception, care, and treatment of pregnant women, and every person, persons, firm, or corporation who shall hereafter engage in conducting such business shall obtain a license from the State board of health which shall not be transferable to other persons or other premises. Every license when issued shall be without charge and shall expire on the 31st day of December next following the issuance. Every application for a license shall first be approved by the health officer of the township, incorporated village, or city in which such lying-in hospital, hospital ward, maternity hospital, or other place for the care and treatment of pregnant women shall be maintained.

Such license when issued shall be for a term not exceeding one year unless revoked by the State board of health for reasonable and just cause. The application for license shall state the name of the licensee, the street and number of the building, and the number of inmates which may be boarded there at one time. No greater number of inmates shall be housed at one time in the building than is authorized by the license, and no pregnant woman or infant shall be kept in a building or place not designated in the license. A record of licenses issued shall be kept by the State board of health, which shall forthwith give notice to the health officer of the township, incorporated village, or city in which the institution is located, of the granting of such license and of the terms thereof. Whoever establishes or keeps, or is concerned in establishing or keeping a hospital, hospital ward, maternity hospital, or other place for the purpose of caring for and treating pregnant women without such license shall be punished by a fine of not less than \$100 and for any subsequent offense by imprisonment for not less than one year.

¹These sections relate to the conduct of maternity hospitals and homes for infants.

Ashes, Garbage, and Rubbish—Cities and Villages Authorized to Provide for the Collection and Removal of. (Chap. 163, Act May 27, 1915.)

SECTION 1. Section 927*p* of the statutes is amended to read:

SEC. 927*p*. The common council of all cities and the village boards of all villages are authorized and empowered to cause the removal of ashes, garbage, and rubbish from residences, residence premises, and such other buildings and premises as may be determined by the common council or village board; and such common council or village board may create and establish one or more special districts in such city or village for the removal of ashes, garbage, and rubbish from residences, residence premises, and such other buildings and premises as may be determined by such common council or village board. It shall be optional with such common council or village board to cause to be removed ashes, garbage, or rubbish from the residences, premises, or buildings of the owners thereof in such district or districts, or in the entire city or village, or from the residences, premises, or buildings of the owners in such district or districts, city, or village who desire such collection and removal. It shall be optional with the common council or village board to charge, assess, and tax the cost of such collection and removal to the several owners of such residences, premises, or buildings on and from which such ashes, garbage, and rubbish have been produced or accumulated, in the same manner as other special taxes are levied and collected, or to provide for such cost by a general tax on all property subject to taxation within the city or village limits in the same manner as other taxes are levied and collected, or by a general tax on all property subject to taxation within the special district or districts from which such ashes, garbage, and rubbish have been collected and removed in the same manner as other taxes are levied and collected.

Barbers—State Board of Health to Supervise Examinations of Barbers and to Make Sanitary Regulations for Barber Shops. (Chap. 221, Act June 10, 1915.)

SECTION 1. Sections 1636-19 and 1636-20 of the statutes are repealed.

SEC. 2. There are added to the statutes two new sections to be numbered and to read:

SEC. 1636-19. The State board of health shall on or before August 1, 1915, appoint and shall have power to remove three competent and practical barbers, each of whom shall have been engaged in the occupation of barbering for at least five years in this State, to be known as the committee of examiners, who shall conduct the examinations required by the provisions of sections 1636-18 to 1636-29, inclusive, of the statutes. Such examiners shall be exempt from the provisions of sections 990-1 to 990-32, inclusive, of the statutes.

SEC. 1636-20. The term "board" when used in any of the provisions of sections 1636-18 to 1636-29, inclusive, of the statutes, shall mean the State board of health; and all fees required to be paid by any of said sections shall be paid to the secretary of said board. Such board shall have power and authority and it shall be its duty to prescribe, amend, and enforce rules and regulations for the examination and licensing of journeymen and master barbers, and make and enforce reasonable rules governing the sanitary and hygienic conditions of barber shops.

SEC. 3. Sections 1636-21, 1636-22, 1636-24, 1636-27, and 172-91 of the statutes are amended to read:

SEC. 1636-21. Each such examiner shall receive \$5 per day for the actual number of days served by such member in performing the duties imposed by sections 1636-18 to 1636-29, inclusive, and in addition to such compensation shall be reimbursed his actual and necessary expenses in performing the duties prescribed by said sections. All claims for services shall show the actual number of hours of service for each day of such service, and in no case shall the allowance exceed the amount of \$5 for services performed during any one calendar day. The total expenditures for carrying out

the provisions of sections 1636-18 to 1636-29, inclusive, shall not exceed the amount of moneys collected and deposited by the secretary of said board as provided in section 172-91.

SEC. 1636-22. The regular examinations for the licensing of journeymen and master barbers shall be held at least four times a year. Special examinations may be held whenever the board shall deem it necessary. The times and places of examinations shall be fixed by the board. Whenever complaint is made that any barber shop is kept in an insanitary condition or that a contagious disease has there been imparted the board shall investigate or cause to be investigated such complaint and enforce the provisions of sections 1636-18 to 1636-29, inclusive. The board shall keep a register of all licensed apprentices, journeymen, and master barbers, and such register shall at all times be open to public inspection. The board shall keep a record of all its proceedings, shall show whether an applicant was licensed or rejected by examination or otherwise, and such books shall be prima facie evidence of all matters reported therein. The fiscal year of said board shall close on June 30, and said board shall file with the governor annually in July an itemized report giving the full statement of all receipts and expenditures, and of its proceedings, business, and activities.

SEC. 1636-24. Any person desiring to become a licensed master barber shall first make an application for a journeyman's license, and such application shall be accompanied by a fee of \$5. Upon approval of such application the board shall issue to such person a journeyman's license, which shall entitle the holder thereof to practice as a barber under a master barber for a period of one year from the date of said journeyman's license and shall also entitle the holder thereof to take one or more examinations provided for in section 1636-22. Said examinations may only be taken during the life of such journeyman's license. Such license may, for good and sufficient reason, be revoked by said board at any time. No charge shall be made for the privilege of taking examinations, but examinations shall only be given to persons who at the time hold journeyman's licenses. When such applicant shall have successfully passed an examination the journeyman's license shall become null and void and the board shall thereupon issue a master's license to such successful applicant, which license shall entitle the holder thereof to practice as a duly licensed master barber. All such master's licenses issued by said board shall expire on June 30 next succeeding the date of issuance thereof. Every person receiving any such master's license shall pay a fee of \$1. All holders of master's licenses shall, on or before July 1, make application for a renewal of such license for the subsequent year and shall accompany such application with a fee of \$1, and upon receipt of such application and fee the board shall issue a new license good for the ensuing fiscal year. If such application is not made by the date above named the board may revoke the license. Persons who at the time of the passage of this act hold apprentice or barbers' permits or registered barbers' licenses shall have the same rights and be subject to the same regulations applying to licensed apprentices, journeymen, or master barbers, respectively.

SEC. 1636-27. Said board is authorized to adopt reasonable rules providing for the sanitary regulation of barber shops and shall have the power to enter any barber shop during business hours for the purpose of inspection of such shops. If any shop be found in an insanitary condition, or if any barber working therein has been charged with imparting any contagious disease, the board shall immediately notify the local health officer thereof, and such shop shall be quarantined, and the barber so charged shall not practice his occupation until such quarantine shall be removed by the health officer. Said board shall have the power to revoke any license granted by it for (a) conviction of crime, (b) habitual drunkenness, (c) having imparted any infectious or contagious disease, (d) for violation of the sanitary rules adopted by the board and approved by the State board of health, or (e) for gross incompetency: *Provided, That* before any license shall be so revoked the holder thereof shall have notice in writing

of the charge or charges against him, and at a day specified in said notice, at least five days after the service thereof, be given a public hearing and be given an opportunity to present testimony in his behalf and to confront the witnesses against him. Any person whose license has been revoked may, after the expiration of 90 days, apply to have his license regranted, and the same shall be regranted upon his giving satisfactory proof that the disqualification has ceased to exist.

SEC. 172-91. 1. All moneys received by the secretary of the board of health for barbers' examinations shall be paid, within one week of their receipt, into the general fund of the State treasury, and all such moneys are appropriated to the board of health to carry into effect the provisions of sections 1636-18 to 1636-29, inclusive, of the statutes.

2. All accounts and claims lawfully incurred in carrying out the powers, duties, and functions of the board of barber examiners shall be certified and audited as provided in section 145 and paid out of the general fund and charged by the secretary of state against the special appropriation account of the board of health, provided for in subsection 1 of this section.

Repapering or Recalcing—Old Paper or Calcimine Must Be Removed. (Chap. 263, Act June 18, 1915.)

SECTION 1. There is added to the statutes a new section to read:

SEC. 4608z. 1. It shall be the duty of every person, firm, or corporation engaged in the business of calcimining, decorating, or paperhanging, before repapering or recalcing any part of a wall or the ceiling of any room in any hotel or other public place which has previously been papered or calcimined, to remove all the paper or calcimine previously placed and remaining upon that part of the wall or ceiling to be repapered or recalcing, and to thoroughly cleanse the same after so removing the paper or calcimine previously placed thereon before again papering or calcimining such wall or ceiling or part thereof.

2. Any person, firm, or corporation violating any provision of subsection 1 of this section shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than \$5 nor more than \$25 for each offense.

Advertisements—Untrue, Deceptive, or Misleading, Prohibited. (Chap. 84, Act May 11, 1915.)

SECTION 1. Section 1747k of the statutes is amended to read:

SEC. 1747k. Any person, firm, corporation or association who, with intent to sell or in any wise dispose of merchandise, live stock, securities, service, or anything offered by such person, firm, corporation, or association, directly or indirectly, to the public for sale or distribution, or with intent to increase the consumption thereof, or to induce the public in any manner to enter into any obligation relating thereto, or to acquire title thereto, or an interest therein, for the purpose of defrauding the public, makes, publishes, disseminates, circulates, or places before the public, or causes, directly or indirectly, to be made, published, disseminated, circulated, or placed before the public, in this State, in a newspaper or other publication, or in the form of a book, notice, handbill, poster, bill, circular, pamphlet, or letter, or in any other way an advertisement of any sort regarding merchandise, live stock, securities, service, or anything so offered to the public, which advertisement contains any assertion, representation, or statement of fact which is untrue, deceptive, or misleading, shall be guilty of a misdemeanor and shall, upon conviction thereof, be punished by a fine of not less than \$10 nor more than \$200, or by imprisonment in the county jail not less than 10 days nor more than 90 days, or by both such fine and imprisonment: *Providing*, That nothing herein shall apply to any proprietor or publisher of any newspaper or magazine who publishes, disseminates, or circulates any such advertisement without knowledge of the unlawful or untruthful nature of such advertisement.

MUNICIPAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

RICHLAND COUNTY, S. C.

Health Officer—Appointment, Duties, and Salary. (Act No. 283, S. C. Gen. Assembly, Feb. 20, 1915.)

SECTION 1. *Sanitary physician for Richland County; appointment; term; compensation; traveling expenses; equipment and supplies.*—That from and after the passage of this act there shall be a county sanitary physician, or health officer, for Richland County, to be employed by the executive committee of the State board of health for a period of four years, subject to removal by such executive committee. He shall receive a salary of \$2,000 a year, payable in equal monthly installments, and \$300 a year for traveling expenses or conveyance, and \$200 a year, if so much be necessary, for equipment and supplies, the items of said expenditures to be approved by the secretary of the said executive committee, such salary and expenditures to be paid out of the ordinary county funds.

SEC. 2. *Duties of physician.*—That it shall be the duty of the county sanitary physician to inspect frequently the sanitary conditions throughout the county and to inform the people by private and public communications as to the needs and means of promoting health and preventing disease, and especially to recommend and enforce proper measures for the control and removal of epidemics of typhoid fever, meningitis, infantile paralysis, scarlet fever, smallpox, and any and every other infectious or contagious disease. It shall further be his duty to discover, as far as practicable, every case of tuberculosis or other contagious or infectious disease in the county and endeavor to effect an isolation or segregation of such case or cases so as to prevent the spread of such disease, and wherever persons afflicted with such disease can not provide themselves with necessary care for the prevention of the spread of such disease it shall be the duty of the county sanitary physician to endeavor to secure for such persons the care of the tuberculosis camp or of such other institution as may be available.

SEC. 3. *Further duties of physician.*—That it shall further be the duty of said county sanitary physician to examine all children in the county under the age of 12 years, unless they have been examined by a physician, and to ascertain whether they have physical defects which might be remedied by treatment, and in every case where he discovers the need of treatment he shall communicate the facts to the parents, guardian, or other custodian of such child, and upon the neglect or failure of such custodian to provide the needed treatment the county sanitary physician shall treat the child, or if unable himself to render the necessary treatment, he shall cause such child to be sent to the Columbia children's clinic for such treatment: *Provided*, That he shall not treat or examine or remove any child without the consent of the parent, guardian, or other custodian, except upon evidence of the danger of the spread of some contagious or infectious disease.